DOCUMENT RESUME

ED 194 570 TM 800 699

AUTHOR	Connell, W. F.
TITLE	The Australian Council for Educational Research, 1930-80.
INSTITUTION	Australian Council for Educational Research, Hawthorn.
PUB DATE	80
NOTE	414p.
AVAILABLE FROM	Lawrence Verry, Inc., River Road, CT 06355
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Educational History: *Educational Research: Educational Researchers: Foreign Countries: *Research and Development Centers: Standardized Tests: Test Construction
IDENTIFIERS	*Australian Council for Educational Research

ABSTRACT

This is the history of an important educational institution in Australia. The work looks at the problems of establishing a new institution in the late 1920s and traces its varying fortunes through 50 years to 1980. It is more, however, than an institutional history. It analyses early contributions to educational research, its subsequent growth in importance, and efforts made in the 1960s and 1970s to provide an adequate support for it. The task of critic and educational reformer has never been a comfortable one, and the book examines the up-hill efforts by the ACER and its overseas visitors from the 1930s to the 1970s to evaluate Australian education and stir the conscience of its educators. Throughout the book there are a number of interesting biographical sketches of important Australian educators, such as Tate, Cunningham, Radford, and Dunn, who had strong connections with the ACER. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED194570

The Australian Council for Educational Research 1930-80

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

D. Maguire

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

TM 800 699

NOV 17 1980

This is the history of an important educational institution in Australia. The work looks at the problems of establishing a new institution in the late 1920s and traces its varying fortunes through 50 years to 1980. It is more, however, than an institutional history. It analyses early contributions to educational research, its subsequent growth in importance, and efforts made in the 1960s and 1970s to provide an adequate support for it. The task of critic and educational reformer has never been a comfortable one, and the book examines the up-hill efforts by the ACER and its overseas visitors from the 1930s to the 1970s to evaluate Australian education and stir the conscience of its educators. Throughout the book there are a number of interesting biographical sketches of important Australian educators, such as Tate, Cunningham, Radford, and Dunn, who had strong connections with the ACER.

ALEXANDER MACKIE 1876-1955
SECTION J ANZAAS
EDUCATION
PHILOSOPHY PSYCHOLOGY
AWARDED TO
AUSTRALIAN COUNCIL FOR
EDUCATIONAL RESEARCH
JANUARY
1964

The Mackie Medal awarded to the ACER by the Australian and New Zealand Association for the Advancement of Science, 1964.

The Australian Council for Educational Research

1930-80

W. F. Connell

To Margaret

Published by
The Australian Council for Educational Research Limited
Radford House, Frederick Street, Hawthorn, Victoria 3122

National Library of Australia Cataloguing-in-Publication data

Connell, William Fraser, 1916–
The Australian Council for Educational Research
1930–80.

Index.
Bibliography.
ISBN 0 85563 209 7

1. Australian Council for Educational Research
– History. 2. Educational research – Australia
– History. I. Title.

370'.7'8094

Copyright © ACER 1980

No part of this publication may be reproduced
in any form without permission from the publisher.

Typesetting direct from Wang diskette by Publication Perspectives
16 Sturt Street, South Melbourne, Victoria, 3205

Printing and binding by Brown Prior Anderson
Evans Street, Burwood, Victoria, 3125

The text and display typeface is Garamond with Old Style numbe
Text paper is 85 gsm MF.

CONTENTS

Page

1 The Foundation Years 1
  Visit by James E. Russell 2
  Preliminary Discussions 3
  The First Executive: Tate, Mackie, and Lovell 6
  The Institutes and the Constitutional Committee 10
  Carnegie Corporation Grant 13
  First Council Meeting 16
    Adoption of the Constitution 17
    Selection of the Executive Officer 18
    Initial Research Program 21

2 Establishing the New Institution 24
  Educational Research before 1930 24
    Child Study 26
    History of Education 28
    School Achievement 29
    Mental Testing 31
  K.S. Cunningham, the First Executive Officer 36
  The First Year 44
    Establishing Administrative Procedures 44
    Creating an Appropriate Image 48
    Developing Policies for the ACER 54
    Starting a Program 58

3 The First Ten Years of Research and Service 63
  Correspondence Education 63
  The Standardization of Achievement and Intelligence Tests 65
    Arithmetic 65
    Reading 69
    Intelligence 71

Contents

Studies of Australian Education 75
  The Primary School 75
  Secondary Education 76
  Rural Education 78
Reviews of Australian Education 79
The ACER and the Establishment of the New Zealand Council for Educational Research 80
Educational Research Series 84

4 Early Comparative Evaluations of Australian Education 90
Australian Visitors to the USA 91
American Visitors to Australia 96
New Education Fellowship Conference, 1937 103
The ACER's Contribution to Library Development in Australia 116
The ACER in the 1930s 122

5 The ACER at War 130
Work with the Armed Services 132
The ACER and the Department of Labour and National Service 134
The ACER's Other Wartime Services 136
Effect of the ACER's Wartime Work 139
Social Science Research Council of Australia 141
The Future of Education Series 143
Financial Support from Federal and State Governments 148
ACER Income 1938–39 to 1946–47 161

6 The Post-war Years 162
Relationships with the Commonwealth Office of Education 162
The State Institutes of Educational Research 164
Post-war Staff 167
Growth of Library Work 168
Establishment of the Test Division 169
Research on Test Theory 174
Curriculum Survey 175
University Investigation 183
The Adjustment of Youth 184
The Work of a Research Assistant 185
  Research Assistant 1947–48 186
Visit by H.C. Dent 188
Assumptions Underlying Australian Education 189
The End of the Cunningham Era 193

Contents

7 Research in Education: Its Function and Organization 199
  The New Director 199
  Planning the ACER's Program 202
  Early Exploration and Views on Educational Research 204
  A Field for Many Tillings 209
  Establishing a Basis for a National Research Policy 216
  Establishment of the Australian Association for Research in Education 225
  Research into Education in Australia 1972 227
  Redefining the ACER's Role 229

8 Information, Development, and Analysis in the 1960s and 1970s 232
  Publications 232
  Emergent Needs in Australian Education 239
  SRA, WARDS, and Peabody 240
  Publication and Sales Policies 245
  Conferences on Primary School Teaching 250
    The Individual Mathematics Programme 252
  The Contribution of S.S. Dunn 255
  Curriculum Materials for Science 257
    Junior Secondary Science Project 257
    Australian Science Education Project 258
  The ACER and the Social Science Curriculum 260
  History and Social Responsibility in Education 264
  Service on Public Bodies by W.C. Radford 266

9 Testing and Research Programs 1960–80 271
  Basic Skills Tests 271
  Tests for the Award of Scholarships 274
    Co-operative Scholarship Testing Program 275
    Commonwealth Secondary Scholarship Examination 275
    Tertiary Education Entrance Project and Australian Scholastic Aptitude Test 281
  Item Banks 284
  Tests for Primary and Secondary Schools 286
  Psychological Tests 289
  Evaluation Studies 290
    International Association for the Evaluation of Educational Achievement 291
    Australian Studies in School Performance 296
    Other Evaluation Studies 300
  Studies of Various Age and Social Groups 302

Contents

10 The Problems of Growth in the 1970s 305
  A Period of Change 305
  The ACER's Income, Profit and Loss, 1953–80 306
  The Contribution of W.C. Radford 313
  The Changing Requirements of the ACER's Staff 315
  The Functions of the Institutes and the Changing Administrative Structure 319
  The Task of the Third Director, J.P. Keeves 323
  The Crucial Problems of the ACER 325

Appendixes 333

I Members of ACER Council and Staff 335

II ACER Research and Development Activities: A Select List 342

III ACER Publications in Selected Series 351

IV Selected Bibliography 361
  Cunningham, K.S. 361
  Radford, W.C. 368
  Keeves, J.P. 380

Index 385

Frontispiece

Mackie Medal

Plates (between pages 190 and 191)

The Three Directors
The Original Executive
ACER Staff Members of the 1930s
Frank Tate
Overseas Speakers, 1937 NEF Conference
Graduation Ceremony, Monash University, 25 May 1972
Staff Groups
Madas Peacock Calculating Machine and Wang Word Processor

ACKNOWLEDGMENTS

Writing the history of a contemporary institution is a delicate task which puts an author in debt to many people. I would like in particular to express my thanks to the large number of present and former members of the staff and Council of the ACER and to the other Australian educators related in various ways to the work of the ACER who generously allowed time for interviews and sometimes repeated discussions on aspects of the ACER's development. At the Carnegie Corporation of New York, A. Pifer, the president, and Florence Anderson, the archivist and former secretary, were most helpful and ungrudging of their time; at the Scottish Council for Research in Education, W.B. Dockrell, the Director and his predecessor, D.A. Walker, went out of their way to provide assistance. I would like to thank the members of the Cunningham and Radford families for important information and documents; Bruce Morey of the Australian Department of Education and Elizabeth Nathan of the Australian Archives staff for help in locating appropriate governmental archival material; H.S. Osmond for assistance with material from the records of the Australian Education Council and the Directors of Education Conference; Neville Drummond and the historical section of the Victorian Education Department; the registrars of the University of London and Teachers College, Columbia University, for access to records; and H.C. Dent and R.F. Butts for pleasant and interesting discussions and useful additional materials. I am very grateful also to several people—S.F. Bourke, G.D. and D.M. Bradshaw, R.W. Connell, S.S. Dunn, J.P. Keeves, R.C. Petersen, K.J. Piper, J.J. Pratt, S.A. Rayner, D. Spearritt, and P.M. Staurenghi—who have read parts of the work and from their special knowledge have offered valuable criticisms of it. Bronwyn Hay, the publisher's editor, with good judgment and a keen eye for detail has considerably improved the manuscript. Chris Cook from

the ACER's library has played a significant role as a part-time research assistant; throughout the course of the research, he has provided invaluable help with the archival work, and has been responsible for the appendixes and index to the book.

W.F. Connell

I

THE FOUNDATION YEARS

> The one greatest need in Australia—a need voiced by every leader that I have met—is for some means of checking impartially the work of the school and of supplying reliable information for continuous development . . . An Institute of Child Welfare Research . . . together with a Bureau of Reference and Research, such as many of our cities maintain, would be a god-send to Australia and New Zealand. The only obstacles are the interstate jealousies which I fancy can be overcome by judicious restrictions on any grants that might be made for the purpose.[1]

This statement was part of a brief and pointed report on Australian education in 1928 by James E. Russell, Emeritus Dean of Teachers College, Columbia University, New York. Two years later, on 10–11 February 1930, a small conference of educators met in Melbourne and formally established a new institution, the Australian Council for Educational Research (ACER), to commence operation on 1 April 1930.

The Australian Council for Educational Research was an Australian institution founded by American philanthropy. It was designed, staffed, and run by Australians, but wholly sustained by American funds for the first 13 years of its existence. Its foundation was the culmination of much activity and thoughtful planning by a group of leading Australian educators and the Carnegie Corporation of New York. The Carnegie Corporation had been established in 1911 'to promote the advancement and diffusion of knowledge and understanding among the people of the United States'. Six years later, a proportion of its resources were set aside as a special fund 'for use in Canada or the British colonies'[2], and in the mid-twenties it started to look into the possibility of aiding educational effort in Australia and New Zealand.[3]

---

[1] J.E. Russell, Australia and New Zealand, Report, 1928, pp.31–2, Carnegie Corporation (Carncor) archives.

Visit by James E. Russell

In 1928 from 20 March to 8 May, James Russell, recently retired from Teachers College, Columbia University, which during the past 25 years he had built up into the finest school of education in the world, visited Australia on behalf of the Carnegie Corporation to assess the current state of education and examine ways in which appropriate assistance might be provided. He was struck by the degree of administrative centralization, the extent of interstate jealousy, and the urgent need to devise methods 'to keep the system alive and alert'.[4]

In Sydney and Melbourne he had lengthy discussions with H.T. Lovell, Professor of Psychology in the University of Sydney, A. Mackie, Professor of Education in the University of Sydney and Principal of the Sydney Teachers College, and Frank Tate, Director of Education in Victoria. In April, while in Melbourne, he wrote from Menzies Hotel to Lovell, suggesting that he take the lead in forming a proposal for an institute of child study and welfare, and to Frank Tate requesting him to organize the matter of an educational research bureau, so that by the time of his return to New York in August 1928 there would be some reasonably concrete proposals to put before the Corporation for its consideration and possible financial support.

In making these suggestions to the two Australians and their colleagues, Russell was following the principle that Keppel, the president of the Carnegie Corporation, had developed. He had found from his experience with activities supported by the Corporation that models introduced from other countries were seldom a success. It was better to use them as suggestions and stimuli to planning that was undertaken by local interested people who with appropriate support might develop, for their own felt needs, viable institutions and practices of their own creation. The Australian Council for Educational Research was to be such an institution. From Russell's diagnosis of Australia's educational needs and his suggestive prodding of selected educators, it was to be shaped, staffed, and directed by local people according to their own views of what was practicable and desirable in an Australian situation.

---

[2] R.M. Lester, *Forty Years of Carnegie Giving*, New York: Scribner's, 1941, pp.170–1, Charter of Incorporation.

[3] In 1927, the Carnegie Corporation made its first four grants in Australia: to the Australian National Research Council, the forerunner of the Australian Academy of Science and the Academy of the Social Sciences in Australia, for general assistance with scientific research; to the University of Melbourne and the University of Sydney for their adult education programs; and to the Central Lending Library in Sydney for the purchase of books for tutorial classes.

[4] *Argus* (Melbourne), 16 April 1928, p.14.

Preliminary Discussions

During May 1928 there were discussions between Tate, Lovell, and several other educators in New South Wales and Victoria and, in June, Tate formally consulted his fellow directors of education in the other States at their biennial conference in Adelaide. He argued that, although during the past 30 years there had been a great advance in providing better practical educational facilities, 'the time is, however, overdue for patient and careful investigation of the fundamental conditions determining the best lines of educational advance'. In the ordinary course of their job, teachers, teacher-trainers, and administrators had no time to spare for the necessary educational research. 'It would', he suggested, 'be a wonderfully fine thing for us if we had the means to release from the common round and daily task a few of our forward-looking students.'[5]

Subsequent to this meeting, Tate wrote on 4 July to the president of the Carnegie Corporation a formal application 'for a grant for a term of years in order to provide for the establishment of an Australian Institute of Educational Research'.[6] In his letter he quoted the directors' resolution:

---

[5] F. Tate to H.T. Lovell, 1 May 1928, ACER archives, series 49, item 171.

[6] In drafting this letter, Tate was assisted by K.S. Cunningham, a lecturer at the Melbourne Teachers College, who had recently returned from two years of doctoral work at Teachers College, Columbia University, where he had met Russell and had been consulted by Keppel on the matter of the Corporation's grant to the University of Melbourne in 1927.
K.S. Cunningham to J.E. Russell, 31 August 1928, Carncor archives.

> That this Conference of Directors of Education heartily approves of the proposal to establish an Australian Institute of Educational Research to carry out enquiries on the lines of the Bureaux of Reference described by Dr J.E. Russell, formerly Dean of the Teachers College, Columbia University, during his recent visit to the Commonwealth . . .
>
> The Conference feels sure that the several State Education Departments would co-operate with goodwill to make the Institute a success, and that the system of educational organization within each Australian State, namely central control of all State supported schools under a responsible Minister and Director, offers peculiar advantages to the enquirer who wishes to collect data over the whole area of a State or to try out an experiment covering one or more States.

Tate further pointed out that there was little doubt each department would unhesitatingly grant leave of absence on full or part pay to any of its officers selected to work on an inquiry that commended itself to the minister or director, that the Victorian Minister had assured him that this course would be adopted in Victoria, and that the other directors were confident that their States would act in the same way. Such a procedure would save the new body a considerable amount of money. Despite the confidence of his prediction, it was an expectation that Tate was not to see fulfilled.

On the matter of organization, he wrote that there was a good and successful model for it in the Council for Scientific and Industrial Research (CSIR) which had in each State a strong expert committee to make recommendations to a small central executive of three members who determined policy and made decisions on all important proposals.[7] If the proposal for an institute of child study and child welfare were also successful, and it too had the directors' support, both bodies should work closely together under the one central executive.

He wrote, at the same time, to Russell of the 'fine unanimity' among the directors in regard to the proposal, and that he himself had 'got very much in love' with it. Russell replied on behalf of the Carnegie Corporation in a letter addressed to Tate, Mackie, Lovell, 'and other Australian educationists', stating that the Corporation viewed the proposal with interest. He added:

---

[7] Tate and Hansen, his successor as Director of Education in Victoria, had discussed with Rivett, the Executive Officer of CSIR, possible ways of organizing the new educational research body based on CSIR's experience.
A.C.D. Rivett to A. Mackie supporting G.S. Browne's application for the position of Executive Officer of the ACER, 21 January 1930, ACER archives, series 49, item 172.

> If and when you shall have perfected an organization capable of administering funds and of directing scientific investigations, this Corporation will grant a total sum of £50 000 payable in annual instalments of £5000 from January 1, 1930.

It would also entertain an application for an additional sum to cover reasonable administrative expenses and the salary of an Executive Officer.

This was a generous agreement in principle on the part of the Corporation, achieved without demur almost immediately on Russell's return to New York. He went on in his letter, however, to point out that there was some solid work to be done before the grant would actually be made. He suggested a meeting of 'leading representatives of education in all your States' to formulate a constitution and by-laws for the proposed Institute which should be:

> independent of control by any University, State School system or political party. Its scope should be as wide as the Commonwealth and its findings should be of service not only to Australia but of interest to the world at large.

Some of the basic questions to be thought about were: what should be the size and composition of the directorate; how to secure the cooperation of the several States; how to select a competent Executive Officer; what were his duties to be; where should the headquarters be located; what was the estimated expenditure per annum of the central office; how to disseminate the findings of any investigation; if travel grants were to be made by the Corporation, could the Institute make appropriate nominations? These and many other related questions were listed by Russell for the sponsors to work on. The Corporation asked that Tate, Mackie, and Lovell act as a committee to determine who should be invited from each of the States to a meeting which Tate should arrange in Melbourne. To facilitate the proceedings, a draft for £200 was sent with which to pay the delegates' travelling expenses; and, to give a possible future Executive Officer an opportunity to study the organization of educational research in the United States, the Corporation offered to pay the expenses of a visit to the USA by 'one or two persons qualified to direct and conduct research in education'. In another letter of the same date, Russell advised Tate:

> Representation on a state basis does not seem to me desirable . . The one important matter is that you should be able to act together without friction in the interests of education in Australia.

The First Executive: Tate, Mackie, and Lovell

On 5 December 1928, Tate met in Sydney with Mackie and Lovell as an executive committee to do the fundamental preparatory work. These three were to continue as the executive group for the new institution for the next 11 years, Tate as President, Lovell as Vice-President, and Mackie as the third member. On Tate's death in 1939 Lovell succeeded him as president until 1948, and Mackie became the vice-president. When the Executive Officer was appointed in February 1930, he too joined the executive and remained with it until his retirement in 1954. There was thus a remarkable degree of continuity throughout the planning stage and formative years of the institution.

Tate was undoubtedly the driving force. For a quarter of a century, he had successfully directed and developed the education system in the State of Victoria. He was dynamic and skilled in administration. He impressed the Carnegie Corporation executives with his quick grasp of ideas, his ability to formulate policy and make decisions, and the confidence which his fellow directors of education placed in him. He and Russell hit it off together perfectly and enjoyed one another's company immensely. He was a convivial companion, and had a capacity to get the best out of his interstate colleagues with a minimum of friction. He had no experience of educational research but, at least, was able to appreciate the kinds of things that his fellow administrators might regard as important. Nor was he an educational philosopher. He was an intelligent educator of liberal principles, as they were understood in the 1920s, with a capacity to seize on and support the idea or practice that seemed to him best suited to the current situation and the foreseeable future.

Mackie was much more of an academic educator. He was a Scot who had been principal of the Sydney Teachers College since 1906, and had worked it up by the 1920s into a sizable institution which was making a greater contribution to educational research and scholarship than any other in Australia. Even so, Russell was not impressed with it. He reported that the curriculum was narrow and that, although in the somewhat static system of New South Wales education it was imperative to keep the teachers college 'alive and alert', there was 'little evidence of such a state at present'. The staff was good, but lacking in experimental and research ability.[8] Mackie had had a philosophical training, wrote several pieces on basic educational questions, had a considerable interest in the newer ideas in education and educational research, had been involved with his staff in some small empirical investigations, and had written a substantial essay on the nature and scope of experimental education. His interests and his contribution were sufficiently well known abroad for him to be elected an honorary member of the Society of Experimental Pedagogy in Petrograd in 1914, at the instance of the celebrated experimentalist, Netschayev. Since 1910 he had also been Professor of Education at the University of Sydney. He had a critical mind and a prickly personality. In the 1920s he was undoubtedly the clearest, most incisive, and advanced thinker in Australian education.

Lovell had been a lecturer at the Sydney Teachers College, went to Jena in 1907 for doctoral work with the renowned educator of the day, Wilhelm Rein, and was well read in experimental psychology. He joined the staff of the University of Sydney in 1913 and, there, became the first Professor of Psychology in Australia in 1928. He was a scholar and a linguist, knowledgeable over a wide field of psychology and with a preference for functional views. Accordingly he encouraged empirical investigation and the application of psychology to practical situations such as education and child guidance. Nothing eventually came of the proposal that Russell had encouraged him to put forward for an institute of child study and child welfare, and he joined wholeheartedly with Tate in the task of developing the educational research organization. He was a patient and agreeable person who worked well with Tate but had a difficult relationship with Mackie.

The three members of the executive were joined in the Sydney meeting by P.R. Cole, the Vice-Principal of the Sydney Teachers

---

[8] J.E. Russell, Australia and New Zealand, Report, 1928, pp.6–7, Carncor archives.

College. Cole was a scholarly person whose principal interest and research was in the history of western education on which he published several widely read monographs. He was a local teacher who, in 1905, had gone to Teachers College, Columbia University for his doctoral work and, on his return in 1910 to the Sydney college, became its Vice-Principal. Cole too became associated with the new research body from 1930 to 1943.

The executive meeting in Sydney on 5 December 1928 made Mackie its secretary, agreed upon six main steps in the organization of the proposed institution, and informed the Corporation of them.

(a) On 13 April 1928, a week after Russell left Sydney, a National Institute of Education of New South Wales[9] had been established at a meeting at the University of Sydney presided over by the university's vice-chancellor and attended by 15 interested educators mainly from the university and the teachers college.[10] Two weeks later, at a further meeting, Mackie was elected president, and Cole secretary, and a resolution was passed 'that a program shall be prepared of educational research and progress to be aimed at by the Institute.'[11] The executive committee decided that the New South Wales National Institute was a suitable body for securing local interest in educational research and could be used as 'a model for similar institutes to be formed in the other States'. The pattern, they felt, corresponded somewhat to the state councils set up in conjunction with what they referred to as the Commonwealth Bureau of Science and Industry. Accordingly they wrote to representative educators in each State informing them of the current negotiations with the Carnegie Corporation and suggesting that they form in their State an institute for educational research similar to the existing one in New South Wales, details of which were enclosed, and that in due course they send representatives to a meeting in Melbourne 'to discuss the constitution of the Australian Institute for Educational Services and Research'.

---

[9] On 17 October 1929 the name was changed to the New South Wales Institute for Educational Research (NSWIER) to conform to the names of the Institutes that, by then, had been formed in the other States.

[10] Since 1910 there had been an Education Society at the Sydney Teachers College which had been interested in the promotion of educational research and responsible for the publication of more than 40 monographs many of which were the result of research by members of the Society in its first 10 years. With the formation of the Institute and the absorption into it of many of the college staff, the Society, which had not been active for some time, ceased to exist.

[11] NSWIER Minute Book, 27 April 1928, Mitchell Library, Sydney.
The proposed ACER differed from the existing CSIR in two significant ways. In the CSIR, the state and national councils and the central executive were appointed by the Commonwealth Government; in the ACER, they were to be elected by interested educators in each State. For the CSIR, leading scientists throughout Australia worked out and endeavoured to cost an initial program of desirable research; the ACER was established without the preliminary of analysing Australia's educational research needs, though the leading educators took part in the process, and without setting up a program which would justify its establishment.

(b) The membership of the council of the 'Commonwealth Institute for Educational Service and Research' was to consist of

(i) the present executive
(ii) one member nominated by each State Institute
(iii) three co-opted members
(iv) the executive officer or director of research.

It would be, they argued, a representative non-political body not directly connected with any government department, state or federal, and it could include useful people who might not be chosen to represent a State Institute.

(c) The future business of the executive committee would be to supervise the finances of the Institute, select an Executive Officer, consider or initiate proposals for assistance in the study of educational problems, approve of the publication of reports, and report annually to the Carnegie Corporation.

(d) The Executive Officer was to be called the Director of Investigation and Research. His salary should not be less than £1000 per annum, and office expenses not more than £1500; annual administrative expenses were therefore expected to be about £2500. This was the amount that the Corporation eventually paid when the council was established.

The Executive Officer was to review applications for assistance, monitor the progress of the various investigations, co-ordinate results, arrange publication, lecture occasionally in each State, and report regularly to the executive. Although he was to be a person qualified to conduct research, the executive apparently did not see him becoming personally involved in much research. In fact, the central office appeared to be an administrative rather than a research centre. The research work was to be associated with the State Institutes or with individuals in the field financially assisted and advised from the central office.

In respect to the two possible research directors who might visit the United States, the executive committee suggested Dr G.E. Phillips and Dr K.S. Cunningham. Dr Phillips, who was then in charge of the Glenfield Special School, New South Wales, and had been a university lecturer on experimental methods in education since 1918, was regarded by the executive as a person of great competence in research. 'There is certainly no one in Australia', they wrote to the Corporation, 'so well qualified in all respects for the difficult and responsible position of director.' Dr Cunningham ran a psychological laboratory at the Melbourne Teachers College and also lectured at the University of Melbourne in psychology and experimental education. The executive committee had 'a high opinion of his qualifications, but consider that his claims to the position of director are not equal to those of Dr Phillips'.[12] Nevertheless they thought it desirable that both should go.

(e) The first meeting of the proposed council was to take place in 1929 in February or later.

(f) If the Carnegie Corporation were interested in making grants for travel and study overseas, the proposed council with its contacts through the State Institutes would be well placed to provide the Corporation with information and nominations.

The Institutes and the Constitutional Committee

During 1929 each State except Queensland established an Institute on the New South Wales model. The executive sent letters 'to the schools of education of the various Australian universities, or, in the absence of a school of education, to the head of the teachers college' suggesting that steps be taken by them to form State Institutes. Tate reinforced the matter by sending a letter to each of the directors of education informing them of current progress and enclosing a copy of the executive's letter concerning the need to establish Institutes. The South Australian Institute came into being in January 1929, the Victorian on 22 May, the Tasmanian in October, the Western

---

[12] A. Mackie, secretary of the executive committee, to J.E. Russell, 12 December 1928, Carncor archives.

Australian in November, and the Queensland in May 1930. In each case the director of education was formally elected patron of the new body, and the professor of education or head of the teachers college became the first president.

Phillips was granted leave by the New South Wales Minister for Public Instruction and left on 4 April 1929 for the USA to study the organization and state of educational research. Cunningham was to have travelled with him but was refused leave by the Victorian Minister. This setback caused some worry to the executive who thought the Victorian action might be regarded by their Carnegie sponsors as evidence that Australian educational authorities were not very solidly behind the proposal to establish a research council. The matter, however, was not raised by the Corporation. Phillips's trip appeared to increase the executive's expectation that he would be the Executive Officer of the new institution. Lovell, apparently convinced of such an outcome, even wrote to Cunningham sympathizing with his being denied the visit to the United States, and enquiring whether he would be interested in being Phillips's successor at the Glenfield Special School in New South Wales.

On 5 August 1929 a representative from each of the States except Queensland and the three-man executive met in Melbourne 'to consider and formulate . . . the constitution of an Australian Educational Research Council, capable of administering funds and directing scientific investigation'.[13] At that stage only three of the State Institutes were formally in existence, New South Wales, South Australia, and Victoria, who sent respectively T.T. Roberts[14], a lecturer at Sydney Teachers College, A.J. Schulz, Principal of the Adelaide Teachers College, and L.J. Wrigley, Professor of Education at the University of Melbourne. From the other two States came R.G. Cameron, Professor of Education at the University of Western Australia, and J.A. Johnston, Principal of the Hobart Teachers College. These men together with Tate, Lovell, and Mackie, the three executive members, were the founding fathers of the new institution, in the sense that they were the first representative and Australia-wide group to meet and agree upon the essential details of its structure and operation, and were the body responsible for the proposal which the trustees of the Carnegie Corporation agreed to fund. The meeting was attended also by Dr Phillips recently returned from his visit to the USA, and by G.T. Fryer, the president of the Federal State School Teachers Association of Australia which had expressed great interest in the project. To satisfy the Corporation it was necessary to show that responsible educators in most of the Australian States were willing to agree on a draft constitution for a workable national research organization. The state delegates did not write a formal constitution but they did come to a unanimous agreement on the fundamental ideas and details from which a constitution could be drafted.

---

[13] F. Tate to J.E. Russell, 6 August 1929, Carncor archives.

[14] In the Australian Council for Educational Research, ***Annual Report** 1930–1931* it was wrongly recorded that the New South Wales delegate was Dr P.R. Cole. Cole attended the first formally constituted Council meeting in February 1930 as the New South Wales representative.

At the meeting Tate recapitulated the history of the movement, Phillips reported on research in the USA, and the delegates had for consideration both the executive's proposals, of the previous December to the Carnegie Corporation, and a brief proposed constitution prepared by Mackie.

The meeting agreed on a name for the new institution. Over the past year there had been many proposals. It had been variously called:

Commonwealth Institute for Educational Service and Research
Australian Institute for Educational Services and Research
Australian Institute for Educational Research and Service
Australian Council for Educational Research and Service
Institute for Educational Service and Research
Australian Institute of Educational Enquiry and Research
Federal Council for Research in Education
Federal Institute of Educational Research
Australian Institute of Educational Research
Australian Educational Research Council
Australian Council for Educational Research.

On the matter of the name there were three questions: Should the new body be called an institute like the state groups, or a council like its scientific predecessor, CSIR. Should it be called a commonwealth, federal, or Australian organization? And should it indicate that its concern was to be as much with practical service to education as with research? The meeting finally decided on the name, Australian Educational Research Council, and it was under this name that the Carnegie Corporation referred to it two months later when it granted funds for its establishment and maintenance.

The meeting of state delegates agreed also on the objects of the new Council, on its size, composition, and powers, and on the need to appoint an Executive Officer. The Council and the Executive Officer were to hold office for three years, and normally to meet once a year in Melbourne or Sydney. The Sydney group proposed that the Council should meet twice a year alternately in Sydney and Melbourne, and later, in 1933 when the Melbourne members of the executive were touring overseas, managed to achieve their heart's desire by organizing two meetings much to the surprise and dismay of the absent Victorians. It was an experiment that was to be repeated infrequently and only in exceptional circumstances.

Tate and Mackie took notes at the meeting, and the executive subsequently discussed and agreed upon a draft constitution submitted to it by Tate in September. The form and most of the wording of the document which eventually became the accepted constitution were undoubtedly Tate's. There are still in existence, in his handwriting, the various drafts through which he firmed up the final product. In one of them, his lifelong contribution to education in the State of Victoria apparently caused a Freudian slip when he wrote that the first object of the Australian Educational Research Council was 'to promote generally, as far as possible, in co-operation with existing institutions the cause of research and investigation in education in Victoria'!

Carnegie Corporation Grant

Meanwhile, on the day after the August meeting, Tate wrote to Russell in New York reporting on 'a very successful meeting of representative educationalists from each Australian State', proposing the establishment of the Australian Educational Research Council in the terms that the delegates had agreed upon, applying formally for its approval by the Carnegie Corporation, and asking to be informed of the decision by cable. On the copy received by the Corporation, President Keppel noted in pencil: 'Cable when Dean Russell approves'. Russell, however, was in Europe for the summer. Keppel therefore cabled to Tate on 13 September that a recommendation to approve a grant would be put to the October meeting of his trustees.

Russell on his return early in October duly gave the proposal his blessing, not however without two misgivings about which he wrote to Tate. He noted that the word 'service' had been omitted from the title of the institution and that an emphasis was being placed on 'research'. He warned against the possibility of 'over emphasis on research of a sterile sort', and suggested the need in Australia for the kind of service 'which ordinarily is not rated as research'. An informative survey of educational developments in Australia and abroad or a critical study of selected teaching practices, for example, may be 'capable of application in professional service', and therefore worthy of the Council's encouragement and support. His other qualm gave him more anxiety. He feared an Australian tendency to try to mollify sectional interests, particularly those of the States. The proposed organization being based on State Institutes might tend to try to distribute funds equally between the six States. He wrote:

> The doctrine of states rights has come so near to wrecking the United States of America that I dread to see it appear in a professional sphere which should know no bounds short of national limits if indeed there should be any sectional limits whatever.

It was therefore most important that the central council should be strong and should act only in the national interest. 'What is best for Australia', he concluded, 'is the sole criterion of professional worth in the administration of your trust.' Russell was immensely interested in the project and pleased that it had made good progress. 'I have so great personal interest in it', he declared, 'that I shall watch your progress with almost paternal solicitude.'[15] The executive considered Russell's warnings, agreed that they were apposite, and decided to ensure that the idea of service should appear prominently in the final version of the constitution.[16]

On 15 October 1929, the trustees of the Carnegie Corporation had before them the following recommendation to which they gave their approval:

AUSTRALIAN EDUCATIONAL RESEARCH COUNCIL

---

[15] J.E. Russell to F. Tate, 10 October 1929, Carncor archives.

[16] F. Tate to J.E. Russell, 4 December 1929, Carncor archives.

Support

The most important recommendation made by Dean James E. Russell, upon his return from Australasia, had to do with the establishment, under support by the Corporation, of an Australian Institute of Educational Service and Research. In his judgment, the whole state educational system needs stimulation from within, and a small institute under highly competent direction which would not build up its own staff, but would assign needed pieces of work to men in the educational system, to be carried on in connection with their daily tasks, would furnish the best possible means of giving the needed stimulation. Three men who, by common consent, are the educational leaders in Australia, Messrs Tate, Mackie, and Lovell, have agreed to direct the affairs of the Institute if it is established. The plan of organization submitted has been approved by Dean Russell, who regards it as eminently satisfactory. The Executive Committee recommends the adoption of the following resolution:

RESOLVED, that, from the balance available for appropriation in the Special Fund (applicable elsewhere than in USA), the sum of two hundred and fifty thousand dollars ($250 000), payable $25 000 annually for ten years beginning 1929–30, be, and it hereby is, appropriated to the Australian Educational Research Council for support of its program of educational service.

In the Australian currency of the time the sum was £50 000 payable at £5000 annually, and the Corporation's treasurer was instructed to pay annually '$25 000 or so much thereof as may be necessary to make £5000'. The grant was to be available from 1 January 1930.

In a letter to Tate conveying the Corporation's resolution, the secretary indicated that an additional sum for the payment of the Executive Officer's salary and other administrative expenses would be recommended at a later meeting. This grant of an additional £12 500 to cover council expenses for a five-year period was duly agreed to in February 1930.

Thirty years later, on the occasion of its fiftieth anniversary in 1961 when the Carnegie Corporation published a summary of its activities, it recorded that the ACER had received, for a variety of purposes, a total of US$541 021. The next most substantial beneficiary in Australia was the Commonwealth Scientific and Industrial Research Organization (CSIRO) with US$250 000 for the construction of a radio telescope. Most of its remaining 115 grants to Australian institutions were for the support of art, music, libraries, and scientific research. Over the first 50 years of the Corporation's history, a total of US$24.5 million was expended on various projects throughout the British Commonwealth. The total of grants for Australia was US$1.5 million and, in addition, about 400 Australians received travel grants to visit, principally, the USA and Europe. In Australia, at least up to the outbreak of World War II, most of its activities were channelled through the ACER which, as a later chief executive of the program put it, 'became during the pre-war period the eyes and ears of the Corporation in Australia'.[17]

First Council Meeting

The final step in the launching of the ACER took place on 10–11 February 1930. The executive organized for that date the first meeting of the Provisional Council of the new body in the board room of the University of Melbourne. The personnel was almost the same as that of the meeting in the preceding August. There were the three executive members, Tate, Lovell, and Mackie, and one representative from each of the State Institutes, all of which had by then come into being. Cameron again represented Western Australia, Schultz South Australia, and Wrigley Victoria. The newcomers were Cole for New South Wales, H.T. Parker for Tasmania, from the Hobart Teachers College in place of Johnston who was ill, and J. Morris, the Principal of the Brisbane Teachers College, for the newly-formed Queensland Institute. W.T. Place, an officer of the Victorian Education Department, who for some time had been assisting Tate with his correspondence,was invited to attend as secretary to the meeting.[18]

Mackie, as the executive's secretary, put three main items on the agenda: (i) the adoption of the constitution which had been drafted and circulated; (ii) the selection of an Executive Officer, and (iii) the consideration of the allocation of funds for the current year.

---

[17] S.H. Stackpole, *Carnegie Corporation: Commonwealth Program 1911–1961*, New York: Carnegie Corporation of New York, 1963, p.12.

[18] W.T. Place took his annual leave to attend to the organization of the conference and its follow-up, and was duly awarded £10 for his services. He eventually became Secretary of the Victorian Education Department 1954–59, and a member of the Public Service Board 1959–66.

Adoption of the Constitution

The draft constitution, with minor amendments, was adopted by the Council.

The name was once more changed, and became the Australian Council for Educational Research. The preceding meeting of state delegates on 5 August had recommended that all the State Institutes should be called 'Institutes of Educational Research'. In October, the New South Wales Institute, when it agreed to conform, put forward the suggestion that the federal body should also be an Australian Council of Educational Research. With a change of preposition from 'of' to 'for', the Council agreed to the new and permanent name.

There had been some support at the August meeting and on the executive for a council of not more than 12 members, one from each of the six States, three co-opted members, and three other co-opted members 'not being professional educationalists'. The final version of the constitution, agreed to at the February meeting, dropped the three outsiders and made provision for a Council of only nine members to be elected for three years. The Council was to make a report once a year and to hold a general meeting in August each year; between meetings, the executive was to have the power to conduct the Council's business. The constitution named Tate, Lovell, and Mackie as the three co-opted members for the first three years, and they were duly elected respectively president, vice-president, and secretary.

The purpose of the new institution was stated at the beginning of the constitution. The five 'objects of the Council' were:

(a) to promote generally, as far as possible in co-operation with existing institutions, the cause of research and investigation in Australia;
(b) to make grants to assist in carrying out any research or investigation approved by the Council;
(c) to publish in suitable form the results of research and investigation approved by the Council;
(d) to nominate or to advise upon students of education qualified to carry out research either at home or abroad;

(e) to take such action (including the making of grants) as in the opinion of the Council may afford suitable and effective assistance to any educational experiment or development.

In pursuit of these objects, the constitution gave the Council three powers or functions:

(a) the initiation and carrying out of researches in connection with or for the promotion of education in all its grades;
(b) the training of research workers and the establishment and awarding of educational research studentships;
(c) the making of grants in aid of educational research, investigation and service.

Selection of the Executive Officer

The constitution also provided for the appointment of an Executive Officer for a period of three years in the first instance. He was to be the permanent full-time officer responsible for advising the Council on research matters, conducting research himself, and maintaining liaison with the State Institutes. The executive had advertised the position prior to the February meeting with a closing date of 24 January 1930. The advertisement stated that applicants were expected to have an honours degree in at least one of the subjects of education, psychology, and philosophy, and that experience in the conduct of educational investigation and in administration was desirable. A salary of £1000 was offered to make the position comparable to a university chair. The quality of the field was most impressive, and the new Council had a list of ten applicants to consider.

G.S. Browne, who three years later became Professor of Education at the University of Melbourne, was 39 years old, a graduate of the University of Melbourne and Oxford University, and Vice-Principal of Melbourne Teachers College. He had previously been Vice-Principal of the Lancaster Teachers College in England and had served with distinction in the Australian army in World War I. He was a part-time senior lecturer in education at the University of Melbourne, lecturing in educational psychology and comparative education. In his first degree at Melbourne he had completed two years of pure mathematics, and subsequently had studied experimental education and statistics at Oxford and Teachers College, Columbia University. In 1929 he edited a volume, *Education in Australia*. The Master of Balliol College, Oxford, where he had studied, described him as

> full of mental activity, quick in observation, open to new ideas; a man of much force of character, as well as great personal attraction—altogether, one who is bound to do great things in the future.[19]

A.G. Butchers was 45, a graduate of the University of Melbourne and the University of New Zealand, had taught in Victorian schools and, from 1923 to 1930, was principal of John McGlashan College, Dunedin. In 1929–30 he published two substantial volumes on the history of education in New Zealand.

K.S. Cunningham was 40, a graduate of the University of Melbourne with first class honours in philosophy, had taught in Victorian primary schools, and served in the Australian army in World War I. He had recently completed a PhD degree at Teachers College, Columbia University with a good grade average and a solid thesis published as *The Measurement of Early Levels of Intelligence*. He was a lecturer in educational psychology at Melbourne Teachers College where he ran a psychological clinic, and a part-time lecturer in experimental education and psychology at the University of Melbourne. For the past 15 years he had been involved in aspects of educational testing and research. Hansen, the Victorian Director of Education, wrote to Tate:

> Not only his training and academic standing constitute strong claims in this case, but his personality and his insight into educational problems should render him most valuable in connection with any research work to be undertaken by the Council.[20]

R. de V. Dreyer ran a Clinic of Odic Therapy in Middle Brighton as a psychoanalyst and irridologist. He would not have improved his chances with the selectors by including in his application some advice on the criteria for selection:

> I note that among other faculties, the position is open to psychologists

---

[19] G.S. Browne, Application for the position of executive officer, Australian Council for Educational Research, January 1930, ACER archives, series 49, item 172.

[20] M.P. Hansen to F. Tate, 16 December 1929, ACER archives, series 49, item 172.

> with a university qualification, and allow me to point out, sir, that the Movement is going to be handicapped by this restriction. The university product of psychology is an anomaly and a negative quality. In him you see a psychologist who is not psychic, nor able to teach others to be psychic.[21]

H.L. Fowler was 39 and had served in the Australian army in World War I. He had an MA from Western Australia and a PhD from London University where he had worked with Spearman and developed a strong interest in measurement and empirical studies. He was a lecturer in psychology at the teachers college and part-time lecturer (later an Associate Professor) in psychology at the University of Western Australia.

H.A.K. Hunt was 27, a Sydney graduate in classics then teaching at Melbourne Church of England Grammar School. He was a first-rate scholar and teacher who later became Professor of Classical Studies at the University of Melbourne, wrote *The Humanism of Cicero*, and had a monograph published by the ACER on *Training through Latin*.

E.N. McQueen was the headmaster of the Presbyterian Ladies College, Croydon, NSW, and had had a monograph published by the British Journal of Psychology.

C.R. McRae was 27, a young man of great intellectual gifts. He had an MA from the University of Melbourne and a PhD from London University under the supervision of Spearman, Nunn, and Burt. He was a lecturer at Sydney Teachers College in educational psychology with a strong interest in mental testing and experimental education, and was to be Mackie's successor both as Principal of the Sydney Teachers College and Professor of Education at the University of Sydney. He eventually became Deputy Vice-Chancellor of the University of Sydney. In 1929 he had published a widely used textbook, *Psychology and Education*, and *An Oral Group Scale for Measuring General Ability*.

G.E. Phillips was 43, a graduate of the University of Melbourne, MA in philosophy, and DSc from the University of London where he had worked in Spearman's laboratory for three years,

---

[21] R. de V. Dreyer to A. Mackie, 14 December 1929, ACER archives, series 49, item 172.

1915–1917. His thesis on *Mental Fatigue* was described by Spearman as 'among the best that has ever been done here'. On his return to Australia, he taught experimental psychology and education and developed a psychological laboratory at the Sydney Teachers College, and lectured in methods of educational research at the University of Sydney. In 1924 he published *The Measurement of General Ability*, an Australian version of the Binet scale, and in 1928 became superintendent of the Glenfield Special School, the first residential school in Australia for subnormal children. He eventually became Principal of the Sydney Teachers College.

H.L. Tonkin was 46, a graduate of the University of Melbourne and the headmaster of Mentone Grammar School. Subsequently, from 1932 to 1949 he was the headmaster of Camberwell Grammar School.[22]

Clearly, Browne, Cunningham, McRae, and Phillips were all strong and attractive candidates. Browne was the most exciting personality, McRae the youngest, sharpest, and most original mind, Phillips the most accomplished and productive researcher, and Cunningham the most experienced in the organization of clinical and educational research.

The Council had considerable difficulty in making its choice. Eventually they managed to narrow the field to three candidates, took a ballot on the preferential system, and selected K.S. Cunningham as their Executive Officer.

Initial Research Program

In the remainder of their first meeting the Council made its first two research grants, in each case to two of its own members: £100 was granted to Professor Cameron to help with some experimental work on the Winnetka Plan, and £50 to H.T. Parker for investigations into variations of intelligence among subnormal children.

---

[22] Interest in the position had also been shown by H.R. Hamley who had written to enquire about the job but had not put in a formal application. Keppel, however, had been impressed by him and sent to Tate references he had obtained on him from two leading American educators, Truman L. Kelley who was favourably impressed and W.H. Kilpatrick who wrote, 'His rare ability and spirit pick him out in an unusual degree'. Hamley, another Melbourne graduate, was 47 years old. He had taught mathematics at the University High School, Melbourne, before going to India to a professorship in Wilson College, Bombay and the principalship of Bombay Secondary Training College. In 1932 he became Professor of Education at the University of London. He was a scholar of great influence in the English-speaking world, and for many years a leading figure in educational research. His death in 1949 moved a future professor of education in England to write a memorial poem in *The Journal of Education*.

The Council further decided that the first research to be undertaken by it would be:

(a) the standardization of scholastic and mental testing for Australia;
(b) a study of the number of children aged 10 to 18 in each school grade or type of occupation; and
(c) the fundamental problems of the primary school curriculum.

The Council's work was to start officially on 1 April 1930.

It is somewhat strange that in all the discussions and negotiations that took place in the two years that passed between Russell's letter in April 1928, suggesting the organization of an Australian research and service bureau, to the beginning of the Australian Council for Educational Research in April 1930, there was never any careful and detailed analysis of the kind of research or types of services that were needed by Australian education and could possibly be provided by the new institution. When CSIR was contemplated, a detailed list of desirable research studies was compiled to help provide some direction for its efforts. At no stage did Tate, Lovell, and Mackie or any other group of educators seek to put together such a statement, nor, surprisingly, did the Carnegie Corporation request it; nor was there any effort made to work out how various significant pieces of research might be carried out, costed, and adequately staffed. The ACER was established on the basis of a general feeling that some kind of research and service was needed in Australian education, but its founding fathers were, with only one or two exceptions, not practising research workers who were conversant with research possibilities and with the kind of educational research that might make a significant impact on Australian education. A gesture was made at the first Council meeting towards a listing of the research projects to which priority should be given, but the brief statement of them provided only vague guidelines for the future work of the ACER.

In so far as there was a policy on research, the view was widely held among the members of the Council and the Institutes that most of the research would be done through the Institutes. The central body would assist by grants-in-aid and by some co-ordination, supervision, and advice from the Executive Officer, and perhaps by eventual publication. Through the Institutes it would be possible to develop work that was relevant to the needs of each State and perhaps, if carefully orchestrated, of value also to Australian education as a whole.

In all its negotiations the executive firmly kept in mind that the new institution was an Australian body, planned by Australian educators in the interests of Australian education. Its research and its other activities, though dependent largely on the State Institutes, were somehow to be managed so as to ensure that educators would see it as an organization of broader purposes, interested in the education of the whole Australian community.

2

ESTABLISHING THE NEW INSTITUTION

Educational Research before 1930

The ACER inherited a small but respectable legacy of educational research. Since the beginning of the century, research in Australia had slowly been building up in parallel with contemporary interests and movements overseas. The work of Wundt, Meumann, Binet, Sully, Spearman, Burt, Hall, and Thorndike was known and reasonably well understood by a small group of interested educators in several of the Australian States. Some of them studied with the leading researchers overseas, and returned to put their research training into practice. Lovell and Smyth, for example, learnt about experimental psychology and education in Germany, Phillips and McRae worked closely with Spearman in London, and Cole studied in New York at Teachers College, Columbia University. Others learnt their trade locally and kept it up to date with the increasing number of journals and books that were appearing in the field. Some of them, for example, Hamley, Porteus, and Cunningham later went abroad to the sources of inspiration; the remainder, such as Cameron, Parker, Roberts, and Whiteoak had to be content to develop their talents and interests without the benefit of postgraduate study abroad.

In the 30 years of the twentieth century before the establishment of the ACER, interesting pieces of research were occasionally reported from country and city schools and from the staff of several teachers colleges in various States, but it was not until the second decade that significant research studies began to emerge. In 1907, the editor of the *Australian Journal of Education* considered the holding of an interstate conference of educational research workers, but concluded that, since there was little work that could 'properly be called original research', the proposed conference would not be justified. Within ten years, however, a small band of talented and productive researchers had emerged. Most of the work was concentrated in two institutions, the Sydney and Melbourne Teachers Colleges. Both were situated in university grounds, had close relationships with the teaching of education, philosophy, and psychology in the universities, and were able to enlarge their opportunities for research and gain some small support from that connection.

For much of the period the two colleges had as their principals two men, Mackie in Sydney and Smyth in Melbourne, who had a considerable interest in experimental education. Neither was a productive researcher, but each was interested in appointing to his staff men with research interests to whom they gave encouragement and provided facilities for work. The Melbourne college had a psychological laboratory, established initially about 1910 and reconstituted in 1923, and between 1910 and 1925 had a formidable group which at various times included Porteus, Fitt, Phillips, Cunningham, and J. and C.R. McRae[1], who published their work mainly in the *Australasian Journal of Psychology and Philosophy* and in the *Education Gazette and Teachers Aid* of the Victorian Education Department. In Sydney, at Sydney Teachers College, research in the history of education and child development had begun and a psychological laboratory had been established before World War I; by the 1920s systematic work had started in mental and achievement testing and several other experimental studies. Phillips and, later, C.R. McRae were attracted to the Sydney college and joined what by the mid-twenties became the most productive and significant source of educational research in Australia. They published their work for the most part through monographs of the Education Society set up at the college in 1908, and through articles in *Schooling*, a professional journal founded by the college in 1917.

Most of the Australian work was commonplace, but some of it was outstanding. There were four areas in which Australian educational research workers mainly became interested: child study;

---

[1] Porteus eventually became Professor of Clinical Psychology at the University of Hawaii, Fitt Professor of Education at the Auckland University College, Phillips Principal of the Sydney Teachers College, Cunningham Director of the ACER, J. McRae Director of Education for Victoria, and C.R. McRae Professor of Education and Deputy Vice-Chancellor at the University of Sydney.

history of education; school achievement; and mental testing.

Child Study

A Child Study Association was established in 1903 in Australia, and study groups were set up in several States.[2] Much of the work done in child study did not qualify as research but was a matter of analysis and discussion of ideas, practices, and findings from overseas. The movement in Europe and the USA was in a flourishing condition in the pre-World War I period and was responsible for a considerable body of literature, part of which found a number of interested readers in Australia. In the research, both overseas and in Australia, there was considerable involvement by classroom teachers; it was a kind of action research in which the requirements of the classroom suggested the problems, provided the instruments and the setting for the investigations, and determined the relevance of the answers.

There were four kinds of research favoured by those involved in the child study movement: anthropometrical, observational, survey, and experimentation. Anthropometry, the measurement of the physical characteristics of children, was a popular and basic approach. The medical profession's developing interest in school children early in the century and the contemporary popularity of anthropological studies based on physical measurement were reflected in the attitude of teachers and educational authorities. They acquired complicated apparatus for measuring height, weight, chest size, respiration, head size, cranium capacity, handgrip, and muscularity. Maria Montessori, then at the beginning of her educational career, wrote a substantial textbook in 1913, *Pedagogical Anthropology*, detailing the kinds of measurements and apparatus, the factors affecting children's stature, and the implications of anthropometry for education. She invited teachers to a 'vast task of observation', pointing out that 'the school constitutes an immense field of research'.[3] The New South Wales Department of Public Instruction anticipated Montessori's summons by undertaking an anthropometric survey of 30 000 children throughout the State in

---

[2] G.H. Knibbs, Society for Child Study: Presidential Address, *Australian Journal of Education*, 1904, 2(4), 6–7.

[3] M. Montessori, *Pedagogical Anthropology*, New York: Stokes, 1913, p.37.

1907 to provide data on possible climatic, social, and physiographical effects on the children's stature.

Observation was used as a source of information on the psychological as well as the physical development of children. Teachers were encouraged to study children's art and such things as their preference in colours, their interests, and their play to try to infer their characteristic traits and their emotional development. Studies of language development in young children were also attempted, and a beginning was made in relating language to intellectual development. This work was closely associated with the kindergarten movement which in the first two decades of the twentieth century was becoming firmly established in Australia. None of these studies, however, appears to have been of any great significance, and none of the pre-World War I researchers in Australia managed to establish any reputation.

Surveys of large samples of children, usually by questionnaire, to determine the incidence of various activities and interests were popular in the child study movement abroad. Few appear to have been undertaken in Australia and none of any great significance. Questionnaires were certainly introduced into Australia and used at that time, but it was to be another 30 or 40 years before they became one of the main tools in child study and social research. One of the most extensive, but at the same time rather useless, non-questionnaire surveys was made in 1913 by Roberts at Sydney Teachers College. Reflecting G. Stanley Hall's and Ballard's work overseas, he made a study of what children in primary schools like to draw, as a basis on which to estimate children's interests between the ages of five and sixteen. Six thousand and sixty children were involved. Boys, he found, mostly liked to draw ships, and girls plants; neither sex was keen on fish! Nine categories of drawings were made, but the relationship of the children's drawing to their interests was not analysed in any depth.[4]

A small number of classroom experiments were undertaken in such things as encouraging children's imagination and memory, changing the length of lessons and the position of various subjects on the daily time-table, and studying mental fatigue. Outside the area of mental testing, the most substantial and scholarly piece of experimentation by an Australian was done on mental fatigue by G.E. Phillips, for his doctoral degree at the University of London during World War I in 1915–16. Phillips's research was a first-rate piece of work. The published thesis began with a perceptive and exhaustive study of previous empirical work in the area, examining in detail the work and ideas particularly of Kraepelin and his school and those of Thorndike. He then reported his own ingeniously and carefully designed experiments in multiplication and cancellation of numbers with a number of groups of boys in Spearman's psychological laboratory at University College, London. In a closely argued and, what now seems, inordinately dull analysis, he defined the nature of mental fatigue and examined with a careful statistical treatment the extent to which it was transferable from one mental function to another, reviewing the current Spearman-Thorndike dispute over the existence and relative importance of general and specific factors, 'to the rather unanticipated conclusion that fatigue is produced generally, but transferred specifically'.[5] He concluded his research with an examination of the work curve, and he proposed a theory of mental fatigue and incitement which was intended to take account of both the physiological and psychological elements of the process.

---

[4] T.T. Roberts, *A Study in Children's Interests*, (Records of the Education Society No. 27), Sydney: Sydney Teachers College, 1916.

History of Education

In the field of the history of education there was a small underbrush of district and school histories appearing mainly as articles in journals or local papers. A few more extensive but undistinguished state and institutional histories were also compiled. In the 1920s in particular, a number of state histories appeared: Smeaton briefly treated the growth of education in South Australia; Rankin tried his hand at Western Australia; Smith and Spaull and also Gollan summarized the progress of education in New South Wales; and Sweetman, Long, and Smyth celebrated the jubilee of Victoria's Education Act of 1872.[6] Undoubtedly the principal scholar in the history of education was P.R. Cole. He ranged widely over the field. From his first publication in 1907 up to 1930, he produced monographs on Herbart and Froebel, Later Roman Education, the encyclopedist Alsted, social foundations of Greek education, education in New South Wales up to 1880, and wrote a series of short articles in *Schooling* outlining the history of education from Homeric times to the renascence. Much of this work was gathered together and published in 1931 as *A History of Educational Thought*.[7]

---

[5] G.E. Phillips, *Mental Fatigue*, (Records of the Education Society No.40), Sydney: Sydney Teachers College, 1917.

[6] K. Gollan, *The Organization and Administration of Education in New South Wales*, Newtown, NSW: Sydney Teachers College, 1924.

School Achievement

Research on school achievement was concerned with performance in school subjects, principally language and mathematics in the primary school. The most notable contributions came from the Sydney Teachers College staff in the 1920s. A team consisting of Cameron, Meldrum, Phillips, Roberts, and Willcock analysed the nature of errors in arithmetic. The results were presented by Phillips at the Melbourne meeting of the Australian Association for the Advancement of Science in 1921, and by Roberts and Willcock in a series of articles in *Schooling*, 1921–1923. These studies were a lead up to a substantial piece of research to establish norms in the four funda-

---

D.H. Rankin, *The History of the Development of Education in Western Australia 1829–1923*, Perth: Carrolls, 1926.

T.H. Smeaton, *Education in South Australia from 1836–1927*, Adelaide: Rigby, 1927.

S.H. Smith, and G.T. Spaull, *History of Education in New South Wales*, Sydney: George Philip, 1925.

E. Sweetman, C.R. Long, and J. Smyth, *A History of State Education in Victoria, 1835–1922*, Melbourne: Education Department, 1922.

[7] P.R. Cole, *Herbart and Froebel: An Attempt at Synthesis*, New York: Teachers College, Columbia University, 1907.

——, (Ed. and trans.), *Later Roman Education in Ausonius, Capella, and the Theodosian Code*, New York: Teachers College, Columbia University, 1909.

——, *A Neglected Educator, Johann Heinrich Alsted*, (Records of the Education Society No.5), Sydney: Govt Pr, 1910.

——, *Social Foundations of Greek Education: A Syllabus*, (Records of the Education Society No.11), Sydney: Govt Pr, 1911.

——, *Studies in the History of Education*, 2 vols, Newtown, NSW: Sydney Teachers College, 1920.

——, Education in New South Wales 1788–1800, Introduction to K. Gollan, *Organization and Administration of Education in New South Wales*, Newtown, NSW: Sydney Teachers College, 1924.

——, *A History of Educational Thought*, London: Oxford University Press, 1931.

mental operations in arithmetic. The team published their results in 1924 and revised them subsequently in 1929, with McRae taking Cameron's place in the group. The work marked, according to the current Director of Education:

> an important advance in the development of educational practice in New South Wales . . . Teachers should strive to ensure that all their pupils reach at least this minimum standard. If used regularly, consistently, and intelligently, these norms should help towards a general improvement in the teaching of Arithmetic in our schools.[8]

The tests devised by the research team were tried out in 137 schools scattered throughout New South Wales, and class norms were calculated for each of the four processes of addition, subtraction, multiplication, and division for grades three to six in the primary school. The tests and norms were published with detailed instructions and advice to teachers on their use. At the Melbourne Teachers College in 1926, Cannon also devised, with rather less sophistication than his Sydney colleagues, a test of the four arithmetical processes, and produced norms for Victorian children from grades three to eight.[9] These were the first of a number of efforts during this century to provide state- or nation-wide standards for assessing achievement in basic subjects. They were the forerunners of the ACER's arithmetic and reading norms of the 1930s, its curriculum survey of the 1940s, and the literacy and numeracy study of the 1970s.

A few small studies were also made both in Sydney and Melbourne of various psychological factors affecting school achievement, such as attention, persistency, and memory. One neat study was that by Phillips in 1925. In a small carefully designed and analysed experiment, he examined the problem of whether memory had any important part to play in arithmetical ability, and concluded that there was no significant relationship between them.[10]

---

[8] R.G. Cameron, H.J. Meldrum, C.E. Phillips, T.T. Roberts, and H.P. Willcock, *Norms on the Four Fundamental Operations of Arithmetic*, Sydney: Department of Education, 1924, preface by S.H. Smith, Director of Education.

[9] J.G. Cannon, Reports of the Psychological Laboratory, Teachers College, No. VI: Teachers College Test in Arithmetic, Simple Operations, Grades IV to VIII, *Education Gazette and Teachers Aid*, 1926, 26(8), 266–7; No. VII: Norms for Arithmetic Test, Simple Operations, *Education Gazette and Teachers Aid*, 1926, 26(9), 300–1.

Mental Testing

Mental testing had its inspiration in Binet's work. Goddard's American version of the Binet tests in 1911 was tried out and adapted in minor ways in Australian schools. Cameron, for example, from the Sydney Teachers College first used Binet's 1908 version, and then, after the 1911 revision, translated and applied it to 177 children in the city and country covering a range from 18 months of 15 years; he commented on the suitability of the items, and on the implications of his results for the school curriculum. Elizabeth Skillen reported in 1913 on her modification and application of these tests to 60 kindergarten and infants school children aged from four to nine years in a Sydney school.[11] More significant was the work of S.D. Porteus in a suburban school in Melbourne.

In 1913 Porteus was put in charge of a newly established Special School at Bell Street, Fitzroy, 'an industrial suburb of below-average social and residential grade'.[12] Subnormal and maladjusted children from the ordinary state schools were selected and sent to Bell Street where the school children and others, brought by parents or referred by doctors, were tested and taught by the currently popular Montessori method. Porteus spoke of the work as 'a mental clinic, the first of its kind in Australia and one of very few in the world'.[13] He relied heavily on the Goddard Revision of the Binet tests to determine levels of intelligence but found he lacked a mental measure which would take prudence, foresight, initiative, and purpose into account.

To meet this need he devised a series of motor-intellectual tests.

---

[10] G.E. Phillips, Arithmetical ability and memory, *Schooling*, 1925, 8(4), 130–4.

[11] R.G. Cameron, *Binet's Tests for Intelligence*, (Records of the Education Society, No.14), Sydney: Govt Pr, 1913; Elizabeth Skillen, *The Measurement of Intelligence*, (Records of the Education Society, No.16), Sydney: Govt Pr, 1913. Cameron in 1927 became Professor of Education in Western Australia.

[12] S.D. Porteus, *A Psychologist of Sorts*, Palo Alto, Calif.: Pacific Books, 1969, p.36.

[13] ibid., p.37.

The problem of making one's way to a set destination through the maze of streets and blind alleys in Fitzroy was the stimulus. He devised pencil and paper labyrinths which the child could survey as a whole and plot his course through from entrance to exit. The mazes provided a goal to be sought and an opportunity for planning or 'prehearsal' by the pupil of what was to be done. Throughout 1913 he devised a graded series of mazes for children from the ages of three to 14. To obtain data on normal performance with which to standardize his tests, he used a Melbourne kindergarten and subsequently a large group of children in the School for the Deaf. With the encouragement of Dr John Smyth, in 1914 he presented a well-received paper at the overseas meeting in Melbourne of the British Association for the Advancement of Science. His work was published in 1915 in journals in both England and America[14], and he was at once launched on his international career.

In 1914 Porteus joined the staff of R.J.A. Berry, Professor of Anatomy at the University of Melbourne, and worked on the measurement of human skulls to chart the course of brain development from infancy to maturity. Several articles on this anthropometrical work were published in 1917–19, and a monograph in 1920. In 1916, he was appointed part-time lecturer in experimental education at the university. In his work he was assisted by various mature students, including K.S. Cunningham who worked on a comparison of the Maze and Binet tests. At the time, the Binet tests 'served as a touchstone of validity for any newly proposed measure of intelligence'.[15] Porteus and his associates' research showed a close relationship between the measures. Cunningham reported that, in comparing the results of testing 100 normal school children, the Binet and Porteus tests were 'in practical agreement in 84 per cent of the cases', and that 'the coefficient of correlation by the Pearson formula works out at r = .707'.[16] More standardization of the Maze tests took place on large groups of Australian children during 1915 to 1918, and tests were also made on delinquent and on Aboriginal children.

---

[14] S.D. Porteus, Motor-intellectual tests for mental defectives, *Journal of Experimental Pedagogy* (England), 1915, 2, 127–35; Mental tests for feebleminded: A new series, *Journal of Psycho-Asthenics*, 1915, 19(4), 200–13.

[15] Porteus, *A Psychologist of Sorts*, p.59; see also S.D. Porteus, *Porteus Maze Test: Fifty Years Application*, Palo Alto, Calif.: Pacific Books, 1965, pp.17–22.

[16] K.S. Cunningham, Binet and Porteus tests compared: Examination of one hundred school children, *Journal of Educational Psychology*, 1916, 7(10), 552,

In 1919 Porteus was offered the directorship of the research laboratory at the Vineland Training School for feeble-minded in New Jersey in succession to Goddard. He stayed there until 1925, working also at the University of Hawaii from 1922, and finally moved full-time to a chair in clinical psychology at that university where he remained until his retirement in 1948.

In 1921 H.T. Parker who had trained at the Sydney Teachers College and moved to Tasmania published an interesting and thoughtful account of his revision of the Stanford version of the Binet tests for Tasmanian children. He regraduated the scale, eliminated some items, rewrote others, and arranged them all in a single series of progressive difficulty without age levels. He then standardized his scale on 320 children drawn from four primary schools in different kinds of districts throughout the State.[17]

In the early 1920s, Phillips undertook a major revision and standardization for Australia of the Binet tests. This was later described, in the first annual report of the ACER, 1930–31, as 'the major piece of research in Australia to date'.[18] In his report in 1924, Phillips explained that he used Goddard's revision as a basis, omitting unsatisfactory items and considerably supplementing it 'by other tests, purloined from various sources'.[19] A novel addition was the use, for this individual type of test, of many items involving analogies, opposites, and similarities that had recently been developed in group tests. He also made extensive use of internal grading, and repeated, for various ages, items in the same form with

---

554. This article, published with Porteus's help while Cunningham was on active service with the AIF, was Cunningham's first venture into scholarly writing.

[17] H.T. Parker, A tentative revision of the Binet-Simon scale, *Schooling*, 1921, 4(4), 144–55.

[18] G.E. Phillips, *The Measurement of General Ability*, Sydney: Teachers College Press and Angus & Robertson, 1924; Australian Council for Educational Research, *Annual Report 1930–31*, Melbourne: 1931, p.39.

[19] Phillips, *The Measurement of General Ability*, p.15.

increasing difficulty or requiring a more sophisticated answer. The items were standardized on a population of 3346 children in primary and secondary schools selected from three different socio-economic areas. Phillips's book incorporating the test and directions for its administration was a comprehensive and perceptively written text on the measurement of general ability, on the reliability, validity, and objectivity of his test, on its relationship to social class and sex, and on its application to grading in schools. This Australian version of the Binet was used in New South Wales during the next 15 years but did not have much currency elsewhere.[20]

Phillips at the same time was working on a group intelligence test which he published in 1924. The test items were tried out on 6000 children aged from 7–15 years in Sydney primary schools. In a series of articles in *Schooling* he pointed out the usefulness of a group test of general ability, noted that it must be valid, reliable, and discriminative, demonstrated how he devised six sub-tests of 119 items of opposites, completion, dissected sentences, best reasons, analogies, and absurdities to meet these criteria, and provided detailed instructions for using and scoring the group scale. In a separate publication on the 'opposites' section of the test, he made a classical statement of the process of norming and scaling that he had followed.[21]

---

[20] In 1935, the ACER made a grant of £200 to Phillips to enable him to restandardize his test.

[21] G.E. Phillips, Sydney Teachers College Group Scale for measuring the general ability of primary school children, *Schooling*, 1924, 8(1), 22–31.
——, Sydney Teachers College Group Scale II, Test material and specific directions for each test, *Schooling*, 1924, 8(2), 48–59.
——, Sydney Teachers College Group Scale III, *Schooling*, 1925, 8(3).
These three articles were collected together and published as:
——, *The Sydney Teachers College Group Scale for Measuring the General Ability of Primary School Children*, Sydney: W.H.B. Printing Co., 1925.
——, Variations in the average general ability of classes in Sydney metropolitan schools, *Schooling*, 1925, 8(5), 165–8.
——, *Studies in Experimental Education, No.I, The Standardization of Tests of General Ability for Australian Children, Part 1, The Opposites Test*, Sydney: Pepperday, 1923.
In 1934 Ruth Thomas published a report of her standardization of this test on 5900 children in Perth, Western Australia, with results very similar to those obtained by Phillips in Sydney. See R.D. Collmann, A.J. Marshall, and Ruth Thomas, *Comparative Intelligence of English, American and Australian Children*, (ACER Educational Research Series No.22), Melbourne: Melbourne University

Soon after Phillips's work, Cunningham, Cannon, and C.R. McRae at the Melbourne Teachers College produced and standardized on city and country children in Victoria another group test of general ability for primary school grades 4–8. The test consisted of 180 items, 20 in each of nine areas: best reasons, mixed sentences, arithmetical problems, crossing out, analogies, number series, similarities, opposities, and completion.[22] Subsequently Whiteoak and Cunningham constructed an oral group test of general ability for Victorian school children in 1928 and, in 1929, McRae completed and published in Sydney an oral group scale for measuring general ability for which he had obtained norms from testing 4000 primary school pupils aged nine to 15.[23]

By 1930 therefore, when the ACER was founded, Australian teachers had available, as a result of Australian research work, a reliable and relevant individual test of intelligence on the Binet model, pencil and paper and oral group tests that had been carefully constructed and well tried on large populations of Australian school

---

Press, 1934. In 1938, McIntyre accepted Phillips's norms for 10- and 11-year-old students, but was critical of those for other age groups, commenting acidly, 'The method adopted for correcting by passing a straight line through the 10- and 11-year norms is more geometrical than psychometrical'. See G.A. McIntyre, *The Standardization of Intelligence Tests in Australia*, (ACER Educational Research Series No.54), Melbourne: MUP, 1938, p.13.

[22] J.G. Cannon, Victorian Teachers College Group Test, Grades IV to VIII, No.1: Description of test and age norms, *Education Gazette and Teachers Aid*, 1926, 26(3), 73–4.
C.R. McRae, No.2: The validity of the test, *Education Gazette and Teachers Aid*, 1926, 26(4), 129–31.
J.G. Cannon, No.3: Mental age and grading of school children, *Education Gazette and Teachers Aid*, (1926), 26(5), 155.
P. McKay and C.R. McRae, No.4: Mental tests and grading of school children, *Education Gazette and Teachers Aid*, 1926, 26(6), 177–8.
C.R. McRae, No.5: The relation between intelligence and social status, *Education Gazette and Teachers Aid*, 1926, 26(7), 241–2.
In 1935, H.T. Parker administered a revision of the test to all 10- and 11-year-old students in Tasmanian schools, and obtained interesting differences between urban and rural children.

[23] L.J. Whiteoak and K.S. Cunningham, Victorian Teachers College Oral Group Test for Grades IV to VIII, *Education Gazette and Teachers Aid*, 1928, 28(11), 279–80.
C.R. McRae, *An Oral Group Scale for Measuring General Ability*, Sydney: Whitcombe & Tombs, 1929.

children, and a non-verbal test of international importance. There was a small but quite significant interest in educational research. There was not much impact from research on practice in the schools, and there were not many individuals involved in educational research. The volume and quality of the work, nevertheless, had steadily improved and there was a small group whose work was quite impressive. Three of the most distinguished of them were applicants for the position of Executive Officer of the ACER, and each continued to be prominent in educational research for many years.

K.S. Cunningham, the First Executive Officer

When Cunningham became the Executive Officer of the ACER in 1930, he saw the ACER's work initially as a continuation of the work of the psychological laboratory of the Melbourne Teachers College that he had re-established in 1923. In that year he explained the function of the laboratory as one that

> should make it possible to systematize and carry further the work on intelligence tests that has been proceeding for some years at this institution. It is proposed to investigate the various group and individual tests now in use; to ascertain more of the nature and extent of feeble-mindedness, and, on the other hand, of special ability, to ascertain physical and mental norms for Victorian children, and to investigate the correspondence between these two forms of measurement.[24]

In several short articles he looked at the nature of experimental education—that 'attempt to introduce scientific method and research into all the arrangements and work of the school' as Smyth, his college principal, had phrased it nearly ten years earlier.[25] He emphasized the need for accurate measurement, and enthusiastically expounded the importance of intelligence testing. 'We may regard', he wrote, 'intelligence tests as the most delicate of all the wonderful instruments which modern science has invented for measuring purposes.'[26] Though he saw the need to inquire into the effect of a child's environment on his educational opportunities, he thought that only in extreme cases would environment affect test results seriously. Intelligence tests were important for 'grading, promotion, and curriculum, the fitting of these to the requirements and capacities of the individual, and the exact measurement of the success of our educational efforts'.[27]

---

[24] K.S. Cunningham, Proposed laboratory at Teachers College, *Education Gazette and Teachers Aid*, 1923, 23(4), 72.

[25] J. Smyth, The training of teachers: paper read before the Educational Section of the British Association in Melbourne, August 1914. *Education Gazette and Teachers Aid*, 1915, 15(2), 61–4.

Cunningham was born in 1890 in Ballarat, Victoria, the son of a Presbyterian minister. As his father moved from charge to charge in Victoria and Tasmania, his son was educated in a variety of state and private schools and was eventually accepted by the Victorian Education Department, at the age of 18, for a six months practical course in teaching at the Specimen Hill School in Bendigo. In 1909 he began his teaching career in charge of a one-teacher school in an old selector's hut at Gunbower Island on the Murray River, and for the next three years taught in a number of schools throughout the State, finishing up in a dairying district in the Gippsland hills not far from the now Tarra Valley National Park. His inspectors reported that 'his work and attitude are very promising' and that 'his influence is rather impressive'. In 1912 he was selected for a two-year primary teacher training course at the Melbourne Teachers College where he remained for three years. He transferred to secondary teacher training and started an arts course at the University of Melbourne in his second year. His principal interest at the university was in philosophy which then included psychology; in each of the subjects of the philosophy school during the two years 1913–14, he consistently gained first class honours. During 1915, while still studying at the university, he taught with Porteus at the Bell Street Special School. There, his school report referred to him as 'a young teacher of considerable promise', and noted that he 'teaches woodwork and drawing most successfully'. It was during the nine months spent with Porteus that he had his first experience of educational research, collecting data for a comparison between scores on Binet and on Porteus's new maze tests. The results appeared in the following year in Cunningham's first published article.[28]

---

[26] K.S. Cunningham, The theory and measurement of intelligence (concluded), *Education Gazette and Teachers Aid*, 1923, 23(12), 201.

[27] ibid.

In September 1915, he enlisted in the Australian Imperial Forces in the Army Medical Service and was sent on active service on 1 April 1916 to France as a private in a field ambulance unit. He remained in the military forces until September 1919, serving as a private and subsequently lance corporal until eventually being appointed a lieutenant in the Army Education Service after the armistice. He worked in this area with ambulance groups and on his return troopship, where he met and established a lasting friendship with R.C. Mills, who was to become Director of the Commonwealth Office of Education.

He was much moved by his war experiences. Throughout the war diaries which he kept from 1916 to 1919, he constantly referred to the horror and futility of war. 'The civilian reader', he wrote, 'it seems to me, owes it as a duty to men who have gone through the physical and mental torture of war to try to imagine just what those tortures are . . .'[29] His life was spent in confused lines of trenches and saps where it was easy to wander unknowingly into the German lines, and in a featureless landscape among desolate villages reduced by bombardment to a mere few feet of brick wall. He endured the great slaughter of Paschendaele and the final German offensive on the Somme and, as the enemy retreated burning the villages as they went, he wrote imaginatively as he observed the distant fires: 'They were the columns of smoke rising from altars—French homes were being sacrificed to the god of war'.[30]

The war experience, in his view, made a great contribution to his own informal education. Serving as a private, he got to know more intimately a wider cross-section of the population than he had previously encountered. He was impressed by the lack of rational thinking among the ordinary soldiers. 'It appeared obvious that schooling had produced little capacity to think for oneself, and to weigh evidence before coming to conclusions.'[31] His work in Army

---

[28] See note 16.

[29] K.S. Cunningham, Lt, 5th Field Ambulance and Education Service, AIF, Original Diary, (5 books), 7 June 1917, Australian War Memorial, Canberra.

[30] ibid., 9 September 1918.

[31] K.S. Cunningham, mss comments prepared in April 1968 on D.W. McElwain,

Education was directed partly to correct this deficiency, and it gave him a lasting interest both in adult education and in the more effective teaching of intellectual skills in schools and universities.

In September 1919 he resumed his interrupted university course, with a term's lectures in sociology. It was the beginning of his interest in the interrelationships of the social sciences and their significance for the study of education. In January 1920 he was married, and in March he finally graduated with first class honours in philosophy. 'I doubt', he afterwards remarked, 'whether I have spent a busier six months.'[32] In the same year he took his Diploma of Education with first class honours, first place, and the Dwight's Prize. In 1920 he was also appointed to the staff of the Melbourne Teachers College as a Master of Method (Primary). He remained there until he was appointed Executive Officer of the ACER in 1930.

At Melbourne Teachers College he worked with J. McRae, later to become Victorian Director of Education, in teaching psychology and experimental education, and from 1923 on was immersed in the work of the psychological laboratory. This work lay mainly in three directions. He was interested in developing further research in intelligence and achievement testing; he became substantially involved in clinical work, testing for the Education, Children's Welfare, and Prisons Departments, and engaging in some embryonic child and vocational guidance; and he had an extensive teaching program of general psychology and experimental education. In addition to his teachers college work, he started in 1921 to give adult extension lectures for the University of Melbourne. From 1923 he was a part-time lecturer at the university, continuing until 1930, and then resuming in 1938 until the mid-forties. He taught psychology to first year philosophy students, and to commerce and medical students, and he lectured in educational psychology and experimental education to diploma of education students. In 1923 he helped to design the MEd degree, the first postgraduate degree in education in an Australian university, and thereafter was responsible for the experimental education section of it.

A Near Century of Psychology in Melbourne, p.18.

[32] ibid., p.21.

D

In 1925 Cunningham went overseas at the age of 35 to study for a doctoral degree in education. Initially he had intended, like his colleagues Phillips and McRae, to study in London with Spearman. He received, however, the offer of a Macy Fellowship at Teachers College, Columbia University, and went to New York. His two years at Teachers College, from November 1925 to June 1927, confirmed his interest in educational measurement.

Cunningham had the great good fortune to attend Teachers College at the height of its prestige and influence. During the 1920s and 1930s it was the finest centre for educational studies in the world. Its dean described its object as that of 'training for leadership in the educational world'[33], and it did train most of the leaders of American education and attracted many overseas students who became distinguished educators in their own countries. Many of its staff were acknowledged leaders in their fields whose articles, research reports, and books were widely and attentively read, and many of them became textbooks throughout the English-speaking world. Under the leadership of E.L. Thorndike, the educational psychology division was particularly strong. Its experimental and neo-behaviourist emphasis was one of the main influences in educational thinking throughout the first half of the twentieth century in Australia as elsewhere.

In his application for admission, Cunningham nominated mental tests as his major subject in the general area of educational psychology. Del Manzo, recently appointed as Assistant Professor, was his adviser and from him he took a course on Problems in American Education. Other similar kinds of courses in Problems of Secondary Education and Comparative Education which he attended were taught by I.L. Kandel and W.F. Russell, son of Dean James E. Russell. Kandel, Russell, and Del Manzo were part of a group recently established to look after the increasing number of international students at Teachers College and develop the study of comparative education. It was the beginning of Cunningham's connection with this field for which he was to retain a lasting enthusiasm. He took most of his courses, however, as he had originally intended, in educational psychology and measurement. Two semesters of advanced educational statistics, one in research in intelligence testing, and one on the analysis of the individual earned a series of B grades for which he compensated by consistently gaining A grades in his clinical and theoretical psychology courses with Thorndike, Hollingworth, and Woodworth, and in a philosophy of education course with Kilpatrick and Raup. Gates, Pintner, Rugg, Symonds, Goodwin B. Watson, and McCall also joined in an extra non-credit seminar in educational psychology that he attended throughout the whole of his time at Teachers College.

---

[33] L.A. Cremin et al, *A History of Teachers College, Columbia University*, New York: Columbia University, 1954, p.79.

His dissertation was his first substantial research publication. It appeared in 1927 under the title *The Measurement of Early Levels of Intelligence*. He was concerned with the problem of whether the lower level items of an adult intelligence test which were suitable for imbecile adults would also be suitable for administration to young children of similar mental age. He used a version of Thorndike's CAVD (Completions, Arithmetic, Vocabulary, Directions) test for which there were data available for a group of imbecile adults and, with it, he tested a group of young normal children aged from 2½ to 5½ years old. Binet tests were also administered to about half of the children.

He found evidence of a very high correlation between the young children's results on the Binet and CAVD tests and, in the CAVD tests, a steady progression of rising scores for successive chronological ages and decreasing scores for successive levels of difficulty. From this he concluded that 'it would appear that a scale for the measurement of intelligence based on the performance of adults of very inferior ability may be strikingly successful in its grading of young children of equivalent mental ages'.[34] Use of such a test, however, would have to be modified in the light of the other analyses that Cunningham made. He thought that the greater experience of the older imbecile adults probably caused them to score higher on some of the vocabulary, while the children of normal intelligence showed up better in the appreciation of spatial relationships—hence his cautious suggestion that the level of the thinking processes and the areas in which they performed best might be different between the two groups. He gave serious consideration to the possibility that, although recorded as the same mental age, the performance of the young children of normal ability might be different in quality from that of the mentally deficient adults. 'Our results', he concluded, 'are not so self-evident that they can be used to justify dogmatic statements, but we have ventured to interpret them as suggesting characteristic differences in the mental processes of the two groups.'[35]

---

[34] K.S. Cunningham, *The Measurement of Early Levels of Intelligence*, (Contributions to Education No.259), New York: Teachers College, Columbia University, 1927, p.64.

The dissertation was a competent and well-planned piece of work. It made use of his increased statistical knowledge and clinical experience, it presented some well-tested results with clear and careful argument, and it tentatively related the findings to more general and 'fundamental questions as the true nature of the concept of mental age, the true rate of growth of intelligence, the existence or non-existence of qualitative differences in mental processes', though, he modestly confessed, 'it would be folly to expect that an investigation as slight as the present one would do more than throw a faint glimmer of light here and there'.[36]

The experience at Teachers College, Columbia University, strengthened Cunningham's interest in intelligence testing, measurement, and clinical psychology, raised his knowledge and skill in each of these areas, gave him a taste of the ideas and capabilities of a group of the world's leading educational psychologists, and widened his awareness of other fields of education. On his return to Australia in 1927, he resumed his work at Melbourne Teachers College and, during the course of the next two years, taught psychology and experimental education, worked with Whiteoak to produce an oral group test of general ability, continued his partial connection with the university, and gave considerable assistance to Tate in the negotiations that led to the establishment of the ACER.

His appointment to the position of Executive Officer of the ACER in 1930 was initially on secondment from the Victorian Education Department. This arrangement was continued until 1934 when he finally resigned from the department. He came to the new job at the age of 40 with a background of practical experience in small rural schools, ten years of study and teaching in the area of research and experimental education, and some modest achievement in research on educational testing.

---

[35] ibid., p.67.

[36] ibid., p.5.

He brought to his task a great enthusiasm for the new venture, a conviction of the importance of sound educational research and testing for the future development of education, a critical view of the current inadequacies of the teaching profession, and a desire to see the new institution point the way to more progressive views and practices in Australian schools.

He was ambitious both for the ACER and for himself. He had been keen to apply for the chair of psychology that was seriously contemplated at the University of Melbourne in 1925–26, and he did apply, unsuccessfully, in 1933 for the chair of education. In 1945, 'I still had traces', he records, 'of the ambition in my system', when the chair of psychology was eventually established; he was dissuaded from applying by the vice-chancellor who made him a member of the selection committee. He was nevertheless a cautious person in most matters and particularly in the management of the ACER and in the conduct of research. Through Tate's forethought and Cunningham's careful management, substantial savings were made each year out of the Carnegie grant and a sufficient reserve was built up throughout the 1930s to tide them over several years between the time when the Carnegie funds ceased and the Australian state and federal governments were persuaded to support the ACER. His own research writings were models of careful expression. In the interests of scientific accuracy, he insisted on editing the ACER's research publications in the same vein. He spent a great deal of time and effort writing to authors pointing out the limits of inference that their data could bear, and rewriting their material to present more cautiously worded conclusions.

Cunningham was a hard-working person of great persistence. He would worry his problems through in detail, and he would pursue his ideas and activities with determination. He spoke of himself as a shy person and tended to be somewhat diffident in discussion; but his staff and acquaintances found him very companionable and, in his career with the ACER, he showed himself to be very sociable both with individual contacts and with larger groups. At the time when he was due for reappointment in 1933, Tate at the Council meeting gave as his opinion that 'he has made a great success of his position and has more than ordinary power in getting the sympathy of the people working for the Council'. His appointment was renewed for a further seven years, the balance of the time for which the ACER, through Carnegie funds, had a guaranteed existence. And when he was in New York in 1954 just before his retirement, the president of the Carnegie Corporation in a speech of appreciation for his work spoke of his hospitality to American visitors in Australia and of the 'warm feeling' that Carnegie executives always felt for him.

The First Year

The ACER's research was not a new departure. It was a continuation of the ideas and lines of development already established in Australian educational research in the 1920s. Indeed the existence and promise of this research gave some feasibility to the establishment of an Australian research council at that time, and the direction already being pursued provided lines which the ACER could hope readily to extend.

The new institution had to establish administrative procedures and routines, to start to build an appropriate and desirable image, to formulate a policy, and to organize a program of activities. All four tasks were seriously tackled in the first year of its existence.

Establishing Administrative Procedures

In a letter of 2 August 1930 replying to a New Zealand headmaster who had been enquiring about the ACER, Cunningham wrote, 'As you can well understand, a good deal of the time up to this stage has been occupied with establishing methods of procedure'.

Even before the formal beginning of the ACER on 1 April 1930, the executive met in Sydney for five days from 17–21 March mainly to set up appropriate machinery for the conduct of the new institution.

The president, Frank Tate, played a substantial role in the initial establishment, even in the day-to-day work of the ACER for many years to come. His reputation as one of Australia's great educational administrators helped to give stature to the ACER both with the public and with educational authorities in the period when it was trying to get itself soundly established. He was the dominant personality in the organization until his death in 1939. In the early thirties he was in daily consultation with the Executive Officer and often in daily attendance at the office. Later his visits were reduced to one or two days a week. He was an astute organizer, had great drive and vigour, and entered into the business of the new institution with great enthusiasm. In 1931 he wrote to Russell:

> My function in administration here is mainly to supply practical experience in dealing with administrative problems. I find the routine work quite interesting and it gives me a few hours each week reminiscent of my old job.[37]

With Cunningham he chose the secretary, decided on the accommodation and equipment, conducted a steady correspondence, lobbied on the ACER's behalf, and took part in a variety of its activities. In 1937, for example, he helped to plan the New Education Fellowship (NEF) Conference and, with Cunningham, joined the lecture group to tour the capital cities for the two-month period of the Conference.

A secretary was appointed at a salary not to exceed £260 a year. The first appointee, Miss M.A. Campbell, a Canadian and an arts graduate from the University of Melbourne, and her successor four years later, Miss W.J. Knee, who had a master's degree also from the University of Melbourne, could boast that, apart from the Executive Officer, they were for many years academically the best qualified persons on the ACER staff. They were fortunate choices. Both were efficient, personable, and responsible women. Cunningham was an indefatigable correspondent and kept the successive secretaries busy coping with the extensive mail and devising a filing system for it. The secretary was part of the research team, going to schools, administering tests, and marking and analysing them. She catalogued and summarized the new books required for the library. There was also a duplicator to manage in order to provide copies of reports and information for each of the Institutes and to reproduce large quantities of test materials for a variety of projects. The secretary had to keep the establishment going when the president and Executive Officer were away on interstate visits or vacation. When they both went overseas at the invitation of the Carnegie Corporation from September 1932 to April 1933, for example, Miss Campbell astutely saw to the finances, kept up a continuous correspondence with the travellers, and, with the help of the two research assistants, managed to keep all the Council's activities running without mishap.

---

[37] F. Tate to J.E. Russell, 30 January 1931, Carncor archives.

Rooms for the ACER were found in the Temperance and General Insurance Company's (T & G) building on the corner of Collins and Russell Streets in the centre of Melbourne's business district. Initially two rooms sufficed for the work; later more accommodation was acquired in another part of the building. The ACER stayed in the T & G building until a move was made in 1958 to larger premises at 369 Lonsdale Street, described over-optimistically in the annual report as 'its permanent home'. Five years later, in 1963, the ACER moved to its present site in Hawthorn.

Equipment had to be purchased. As testing had by then moved well into its pencil and paper stage, the equipment was not elaborate and was economically purchased by persuading the supplier to agree to government contract rates. It was mostly office furniture: a long table round which the research assistants could work, and an adding machine to ease the burden of calculating innumerable squares and square roots for the standard deviations and Pearson's r on which the analysis of their testing programs rested. This Peacock calculating machine was affectionately known as the chaff-cutter and served the ACER well for many years.[38]

Financial arrangements had to be made to deal with the Carnegie grant. All funds were paid to the Union Trustee Company who made them available at short notice and also permitted them to earn interest. The trustee company made all payments on behalf of the ACER and furnished an annual accounting to the Council. This arrangement proved to be so convenient that it was maintained for almost 20 years until in 1948 the ACER employed its own accountant to look after its growing volume of test sales.

Procedures in dealing with the Institutes were an early concern for the executive. The NSWIER gave the matter of the Institute's powers and relationships to the central Council some considerable thought, and resolved on 30 June 1930 to write to the Executive Officer suggesting that the Institute should be consulted on all applications for grants from New South Wales, and should be informed of all decisions on grants made to persons in their own State. It thought also that Institutes should be informed of the dates of Council meetings and receive the minutes of them. The ACER, it advised, should become an incorporated body, and it should make a grant of £100 to the NSWIER for administrative purposes. The Council responded by making a grant of £20 to each Institute for clerical and general expenses, agreed to provide information about its meetings, and decided that the Institute of the State in which an application originated should be given an opportunity to express an opinion before the Council made the final decision. In the following year, the NSWIER offered a further parcel of advice to the Council, at its meeting on 17–18 August 1931:

---

[38] W.C. Radford, The Australian Council for Educational Research: address to staff, November 1969, p.2. ACER archives, series 54, item 141.

(a) The ACER's constitution should be changed so that the term of office of the Institute's delegates be left to the discretion of the Institute instead of being a mandatory three years. The Council turned the proposal down.
(b) The grants should not be made for the general support of organizations. The Council noted the suggestion and decided not to make any formal declaration of policy.
(c) Any applicants who made a direct approach to the Council should be referred back to the State Institute. The Council let the NSWIER know that this was already its policy, except in the case of requests for publication of work already completed.

After this not very well-received effort, the NSWIER desisted from its efforts to make the Council see reason and henceforth left it to its own devices.

The organization and procedures that the Council set up proved to be remarkably frictionless. There were very few cross words between the Institutes and the Council, and there is no record of the Council losing confidence in or seriously criticizing its executive. The possible friction that J.E. Russell had anticipated between the New South Wales and the Victorian members of the executive smouldered for a short while but did not ignite, and Russell, delighted that they could work effectively together, wrote to Cunningham on 26 June 1930:

> In selecting the three men as executives, I was fully aware of the differences of opinion—not to say—critical aloofness, but I felt that Australia needed the active and cordial support of all three. It is very cheering, therefore, to know that they are giving such cordial and patriotic service.

From the very beginning, the effective power was the three-man executive. It would meet several times a year either in Melbourne or Sydney, and report to the Council at its meeting normally once a year in August. Cole, at the 1930 Council meeting, argued persistently for six-monthly meetings but he had no support, and the Council decided to continue with annual meetings until the need for more frequent meetings became apparent. Through Tate, the president of the Council and chairman of the executive, a close contact was maintained between the executive and the daily business of the institution. The executive was therefore never out of date and never unaware of what was going on, and the Council appears to have had complete confidence in their ability and judgment. Cunningham, the Executive Officer, was sufficiently reasonable and competent to be relied on by his Council and executive, and sufficiently prudent and tactful not to be tempted into provocative activity. In summarizing the first ten years in his annual report of 1939, Cunningham wrote:

> As an organization the Council has worked remarkably smoothly . . . It is impossible to recall any instances of internal friction whatsoever. There must surely be few organizations with the same potentialities for geographical and local difficulties with as happy a history.[39]

Creating an Appropriate Image

What kind of public image did the ACER seek to build? At the time of its establishment, the high expectations of those who were aware of its birth could probably have been summed up in a leading article that appeared in the Melbourne *Age* of 8 April 1930:

> Alterations in much of the theory and practice of teaching in the Commonwealth will probably follow the investigations of the Australian Council for Educational Research established a week ago . .

---

[39] Australian Council for Educational Research, *Ninth Annual Report 1938–1939*, Melbourne: 1939, p.18.

Those responsible for the development of the ACER shared the enthusiasm of the writer but would have had a rather less ambitious view of the future of their new foundation.

They were at all times very conscious of the need to make their work and intentions widely known to the general public and the teaching profession in particular. During the first year, articles on the ACER were supplied to newspapers and to the departmental journals in each State, and items were supplied from time to time for the schools columns in the newspapers which ran them. All the members of Council gave talks to groups in their States, while Tate and Cunningham dealt with the teachers, doctors, businessmen, and parents in their local scene, broadcast over the national radio, and visited and talked to groups interstate. This initial activity set a pattern of continuing and fairly modest publicity through newspapers, journals, and professional organizations throughout the 1930s.

The image that the ACER built up with moderate success was of an institution that could be seen to have four characteristics.

First it was to be a centre devoted to the scientific study of education. In the week following the establishment of the ACER, Cunningham talked to the Constitutional Club in Melbourne to explain to its members the new institution as a much needed stimulant to inquiry into all aspects of education. 'Research', he was reported to have said, 'was the questioning of a system with science as a background.'[40] What remained to be learned was much greater than what was known and, because of the new foundation, it had become possible for the first time in Australia to seek out this information and probe our educational practices scientifically. The ACER, as its founders saw and expressed its role, was to be the main promoter of investigation into Australian education; it was to undertake its own investigations and to encourage well-qualified persons throughout Australia to undertake similar work.

Cunningham's interest in the scientific study of education had something in common with the interest in the scientific management of business that for 20 years had been steadily growing in popularity, and that his contemporary, Essington Lewis, was endeavouring to apply to Australia's largest industrial firm, Broken

---

[40] *Argus* (Melbourne), 8 April 1930, p. 7.

Hill Pty Ltd. BHP's workers were expected to measure up to certain standards of efficiency and production that were carefully gauged by observation and objective testing of the individual workers. Cunningham's main research program of the 1930s was the standardizing of a series of tests in the performance of basic skills and in general ability for the pupils in all the Australian educational systems. Taylorism in business management and Thorndike's neo-behaviourism, which underpinned the educational testing programs, were compatible doctrines. 'Taylorites and Thorndikeans seek precise measurements and the analytical reduction of either bricklaying or learning to spell into all its calculable atoms of behaviour.'[41] The outcome of the scientific study of education, however, was not necessarily to be the more efficient standardization of teaching and learning. Cunningham's scientific approach was mellowed by his slight dalliance with progressive education. He was interested in encouraging individual development. He saw the tests which the ACER might produce as instruments which would provide a more accurate picture of each student's performance and potentiality, and would enable teachers to cater better for their individual needs. It was a view which Essington Lewis would have applauded with a different purpose in mind. Both educator and businessman were interested in finding out what an individual could do and in trying to ensure that he worked to capacity. Cunningham was conscious of the dangers to education of over-using efficient examining instruments. 'Systems', he wrote, 'highly centralized like those in the Australian States readily lend themselves to examination abuses.'[42] He pointed out in detail the advantages of having standardized tests that were reliable and valid[43], but did not examine all the possible consequences for Australian education that might ensue if the ACER were to spend much of its time developing, selling, and promoting the use of such tests, and if its image were to become primarily that of a test agency.

---

[41] G. Joncich, *The Sane Positivist: A Biography of Edward L. Thorndike*, Middletown, Conn.: Wesleyan University Press, 1968, p.308. The quotation continues:

> The disciples of Thorndike's *Introduction to the Theory of Mental and Social Measurements* are building statistical laboratories in university departments of psychology and education, founding research bureaux in city school systems and state departments of education, and calling in survey teams . . . Out of the same spirit, enthusiastic readers of Taylor's *The Principles of Scientific Management* (1911) which was translated into nearly a dozen languages, have proposed laboratories in factories, created time-study engineering, and invaded or established graduate schools of business.

[42] P.R. Cole (Ed.), *The Primary School Curriculum in Australia*, Melbourne: MUP, 1932, p.275.

Secondly the ACER was to be seen as a knowledgeable sort of institution that could be used by Australian educators to improve their information. It was a source of reference on what was the best and latest in educational thought and practice. Those who spoke and wrote in its name were expected not only to be well informed but also to draw on the evidence of the soundest research and experimentation throughout the educational world.

As it was seen to be ahead of the local educational world in its information and to act as a stimulus to the improvement of Australian education, its public image was, in the third place, that of a supporter of progressive education. Individually almost every member of its Council during the 1930s would have been found in the progressive camp, some rather more openly than others. Browne, Cameron, Tate, and Mackie associated themselves with the progressive movement and later, in 1937, took a leading part in organizing the NEF Conference. Browne in 1935 congratulated Cunningham on a recent article and suggested that they combine to promote the cause of progressive education.[44] Cunningham was a temperate but consistent advocate of educational reform and activity education, and it was on his suggestion that the NEF Conference was held in Australia. 'We conceived of the ACER', he later wrote, 'as an agency for challenging the complacency which was far too obvious in those days.'[45]

Fourthly, from its very beginning, the ACER tried to be consciously Australian. The policy was not wholly successful. The ACER's office was in Melbourne, and its president and Executive Officer—the two main spokesmen—were both Victorians. Hence there was much more contact with Victorian schools and educators, and there was an excusable suspicion by educators in other States that the ACER tended to show undue interest in Victoria. Nevertheless the Council was representative of all the Australian States, the executive always had members from at least two, and they tried to make sure that there was an equitable distribution of grants and activities among the States. In the first ten years it was impossible to avoid a heavy and obvious reliance on New South Wales and Victoria, the two most populous States and the ones in which educational research had made the most progress. Of the reports that the ACER published during that period, 17 originated in New South Wales, 15 in Victoria, and 19 in the other four States; of the grants that were made for research projects, 23 went to Victoria, 17 to New South Wales, and 25 to the remainder of Australia; of the staff that was seconded for two-year periods from the state education departments, there was a much more even distribution, one coming from New South Wales, two from Victoria, two from Queensland, one from South Australia, one from Western Australia; and two from Tasmania. In all of these concerns, the Executive Officer consulted conscientiously with the State Institutes.

---

[43] ibid., pp.294–5.

[44] G.S. Browne to K.S. Cunningham, 21 July 1935, ACER archives, series 6, vol.1.

[45] K.S. Cunningham, revised typescript of interviews with B. Bessant, in the possession of J.R. Lawry, Burwood State College, Victoria, p.23.

The ACER was to be seen, however, as something more than a mere broker between the States. It was to be a body with an Australian outlook. Prior to its establishment there had been no educational institution with an Australia-wide interest. There was a Directors of Education Conference for the state departments, a headmasters conference for the independent schools, an Australian Teachers Federation, and an Australian Vice-Chancellors Committee for the six state universities; there was also section J for Education in the Australian and New Zealand Association for the Advancement of Science which acted as a forum for the discussion of educational questions of interest to Australia as a whole, and there was the CSIR, recently established to develop and encourage scientific research throughout Australia. But there was no single institution set up with a central interest in the general welfare and progressive development of Australian education as a whole. The ACER set out to become such an institution.

A large proportion of the work undertaken and directed through the head office consisted of Australia-wide projects.. In the very first Council meeting, a survey of correspondence education throughout

Australia and a plan for the preparation and standardization of tests in arithmetic for Australia were announced. They became the principal research contribution of the ACER during the next three years, and were followed by national surveys of primary, post-primary, and rural education, and the standardization of reading, spelling, and tests of general ability for Australian children. In 1937 the ACER ran the educational event of the 1930s in Australia, the New Education Fellowship Conference, and commissioned some of the distinguished overseas visitors to the conference to report on Australian education. It also published reports from Australians travelling abroad on their experiences and their views on the state of Australian education, it published a great number of monographs by research workers throughout Australia, and later in the 1930s started to publish periodical reviews of Australian education. It began, in effect, to build up a consciousness of the condition of Australian education as distinct from that of Victoria, or New South Wales, or some individual State, and started to provide an educational literature with an Australian orientation. Tate and Cunningham both wrote articles on Australian themes in education for overseas yearbooks, and began to be seen from overseas as the Australian voice in education; and the ACER became the reference point for overseas organizations wanting information on Australian education. The ACER also acted as the clearing house for Australian educators who wished to apply for or who might be specifically invited to accept a grant from the Carnegie Corporation to visit the United States and other countries.

To increase his information on the nationwide scene, to keep in touch with the State Institutes and other educators, and to strengthen the ACER's national image, Cunningham visited the various States from time to time. Perhaps his visits were not, over the years, as frequent as the all-Australian image demanded. Certainly he was much more knowledgeable about the practices of his home State and its personnel, and surprisingly uninformed about some of the activities and individuals of interest elsewhere in Australia. This, at all events, was the view of some of the senior executives in the Carnegie Corporation in 1938. John Russell, the president's assistant, became a little uneasy at the lack of knowledge on non-Victorian candidates for Carnegie travelling grants in Cunningham's reports to the Corporation and, after talking with him on a visit to Melbourne, reported, 'I found he didn't get away from his desk very often . . . K.S.C. really doesn't know enough about other States. He should travel more'.[46] In consequence, the president wrote tactfully to Tate indicating that the Corporation was constantly seeking more information from Cunningham on a variety of matters throughout Australia and that, as the ACER would naturally prefer to spend its money on research rather than on travelling expenses, the Corporation would be interested in making a small travel grant, over and above its regular grant, to enable the Executive Officer to visit the other States at least once a year. Cunningham, unsuspecting, wrote a letter in due course to thank the president for the Corporation's unexpected and unsolicited generosity to the ACER.

Developing Policies for the ACER

The ACER's image was, of course, closely related to the policy which it developed for the conduct of its work. There was no general announcement of policy. It arose initially out of the arguments that preceded the decisions which set the precedents in the course of the two executive and two Council meetings that were held in 1930. They were lengthy meetings—the first meeting of the executive went on for five days from Monday to Friday, 17–21 March 1930—and they established common trends in thinking among the members who maintained their position on the governing bodies with remarkable stability throughout the opening decade of the institution's history.

(a) The Council and its executive by their decisions during the course of the first year clearly favoured an emphasis on research in the activities of the new organization. There had been much talk during the founding period of the importance of stimulus and service to Australian education. These were not to be forgotten, and they were mentioned in the constitution, but it was research that became part of the formal title of the institution, and it was to research that its funds were to be allotted as far as possible.

In making the initial grants to applicants in 1930 the Council had to consider the purpose of them. Should they provide money only for research projects? In view of the statement in the constitution empowering the ACER to make grants 'in aid of educational research, investigation and service', how far should grants be made in support of educational service? Could they be made not for a particular service operation or investigation but for the general support of a service or research organization that put in an application? Mackie thought service meant less scientific research, not service in a more general sense. Lovell and Schulz from South Australia disagreed, and thought the ACER should be free to aid educational services in general. The Australian Institute of Industrial Psychology in Sydney was a case in point. This institution, recently established and directed privately by Dr Martin, a member of Lovell's staff at the University of Sydney, tested secondary school students, offered them vocational guidance, and undertook research in that field. The Council decided that it could not grant money for the general support of the institution and, in this, confirmed the view that the Executive Officer had already expressed in correspondence to other potential applicants. The eventual decision was to provide a grant specifically to support two research projects into vocational tests and guidance. A similar request to support the New South Wales Board of Social Studies in the training of social workers was refused, but a grant was made to the body to make a survey of social agencies throughout the State. Following on the Council's discussion, a form of application for grants was devised in which the application was referred to as an investigation, and particulars were requested concerning the qualifications of the investigator, the proposed lines of inquiry, and its anticipated duration. Thus the Council declared firmly in favour of support for research not service, and for specific projects that could be identified and approved rather than general research or service programs. Service to Australian education was to be provided and encouraged by the ACER but not by grants-in-aid from the Council's resources.

---

[46] Record of interviews between J.M. Russell and Cunningham, July 27 and August 1 1938, Carncor archives, Offices of the president.

(b) The second general policy that emerged was an interest in building the ACER into a clearing house of educational information about educational developments as well as research both in Australia and overseas. It was to be a centre to which educators abroad could write for information about Australian education, and on which Australian educators could rely for accurate and up-to-date information about their own and other countries. For this purpose the Executive Officer was to start immediately to build contacts and develop an appropriate library.

(c) The ACER was seen initially and for some time by its Council as a body whose research and other significant activities functioned through the Institutes. It proved to be an unworkable concept. It was possible to use the Institutes as sources of advice to headquarters, as bodies providing assistance for the field work involved in Australia-wide projects, and even as groups who might identify and supply authors or resource persons for jointly written publications. But as soon as the Melbourne office started to plan national projects and recruit full-time staff to help cope with research work of that kind, the possibility of the Institutes becoming the principal centres for the research done by the ACER began to lessen. And it was from the very beginning that these practices got under way. The national projects were few and the staff was minimal; but by the mid-1930s it was no longer possible to think of the Institutes to any serious extent as originators of or key participants in the ACER's research program. Nevertheless it remained the Council's policy to involve the Institutes wherever possible in its activities. The Institutes offered useful and welcome advice on research grants, took a substantial part in the organization of activities such as the NEF Conference, and some of their members found themselves advising, assessing, and sometimes participating in some of the ACER's surveys and research, but they did not become a central part of the Council's activities.

(d) It was not the policy of the ACER to restrict the research which it undertook or supported and the services which it offered to any category or level of education. Investigations, for example, as the researches were usually called, received appropriate grants whether they were survey studies, experimental projects, documentary researches, statistical analyses, or testing programs, in educational psychology, curriculum, history of education, teaching techniques, or school administration. The broad policy that did emerge from this catholicity of taste was that preference should be given to research which could be seen to be of value in understanding or improving the work of the primary and secondary schools in the state systems.

An early task for Tate and Cunningham was that of talking with the directors of education at their biennial meeting in May 1930, to report on the ACER's recent establishment and explain their aspirations for it. After an extensive discussion, the directors passed a formal resolution affirming their desire to co-operate with the ACER in every way. The effect of the meeting was, as Cunningham put it, to give 'our investigators or myself access, for the purposes of inquiry and reasonable experimentation, to all state-controlled schools in Australia'.[47] These schools and their pupils became, not surprisingly, the main concern of the ACER's work. Every single member of the first Council was on the staff of a state teachers college, except Tate and Lovell who had previously served in teachers colleges; they were all products of or had a current involvement in the state schools, and the same could be said of Cunningham and his research staff. Hence for many years the ACER had little to do with universities, independent schools, the Catholic school system, or with adult education. It did not omit those areas entirely from its program but it gave its attention primarily to the needs of the state system. For this it had good justification. The state schools, with which the sympathies of the Council and staff lay, were the central part of the Australian educational operation. If the Council was to serve Australian education, it was obviously sensible for it to seek to get full access to and to make as strong a connection as possible with these schools and their pupils, teachers, and administrators.

(e) The fifth and final line of policy that emerged from the discussions and actions of the first year was an interest in training research workers. There was clearly a lack of competent and qualified educational researchers in Australia. The only training available was the MEd course at the University of Melbourne, reasonably pertinent courses in psychology at the University of Sydney and the University of Western Australia, and the possibility, through appointment to a teachers college, of working part-time on some project with a more experienced researcher. The most talented individuals tended to go overseas to a university in England or the USA to get their training by working for a higher degree.

The Council resolved to ask the directors of education to second to the ACER and pay the salary of a teachers college student or promising young teacher for a period of two years in which he would assist in the on-going research work and, at the same time, receive an informal training in educational research. He would also be encouraged to study for a Diploma of Education and, after 1936 when it was established, a Bachelor of Education degree at the University of Melbourne. In this way, it was hoped steadily to build up throughout Australia a growing body of interested and experienced researchers who could put their skills to the service of their respective education departments. It was, at the same time, an inexpensive way of getting the Council's research done. In accordance with the policy of encouraging the ACER's efforts in research training, Cunningham, who had given up his teachers college and university lecturing when he became Executive Officer, resumed his part-time work in educational psychology and experimental education in the DipEd and BEd courses at the University of Melbourne in 1938. Over the years, he built up with the university a strong connection with the measurement and research courses in education that the staff of the ACER has continued to the present day.

---

[47] Cunningham to J.E. Russell, 13 May 1930, Carncor archives.

Starting a Program

The early program was built up out of these policies, depended on the opportunities that the current educational scene presented, and was subject to limitations of finance and availability of manpower. It had four main components: research, directed from head office or supported by grants to individuals or groups; publication; clearing house and library; and educational services, official and informal.

Four national projects of different kinds were agreed to by the Council in its first year. There was to be a survey of the history, administration, methods of teaching, progress of pupils, and problems of providing primary education by correspondence in Australia. This was to be undertaken by the Executive Officer. A start was to be made on a survey of the primary school curriculum, methods of curriculum development, and possible means of revision. It was to be guided by a committee of the Council and to involve significant educators in each of the States. Plans were laid for a major program of producing standardized arithmetic tests for the whole of Australia, which was to be directed by the Executive Officer and carried out in the state schools by teams organized by the Institutes. Finally the Executive Officer was given the task of compiling a set of basic educational statistics for Australia on post-primary school attendance, holding power of the schools, teachers' salaries, and the length of the teachers' professional life.

These four projects were representative of the research concerns of the ACER for many years to come. The most extensive, the testing one, was an extension of the work Cunningham and his associates and the Sydney Teachers College group had been doing in their psychological laboratories before the establishment of the ACER. It was soon to be extended to a range of achievement and intelligence testing, and to blossom into the elaborate test division of later years. The two surveys demonstrated an interest in taking up an aspect of, or issue in, Australian education, seeking to establish its dimensions, and suggesting possible ways of improving the situation that the survey had unearthed. It was a process of survey with evaluation by informed minds that was to be characteristic of a considerable number of the ACER's subsequent tasks and publications. The compilation of educational statistics was a continuing necessity of an institution claiming to speak for Australian education. It sparked a lasting interest in the project of trying to persuade the Australian state departments, and later the countries of the world, to produce comparable and standardized sets of statistics, a task of interest to the Commonwealth Office of Education after its establishment in 1945. Although it would be true that, of the lines developed in the research program, the testing aspect received the most emphasis from the beginning and for some time to come, it was also clear that curriculum studies were early in evidence and continued to be pursued, if not with the same rigour as the testing program, at least with the support and interest of a number of leading educators.

Research supported by grants in the early years far outweighed that undertaken by the Council in the number of projects and in the cost to the Council. It was a large and important part of the ACER's contribution to research throughout the 1930s. The sum of £15 934 was spent on research grants in the first ten years, and only £3955 during the following 15 years when the Council projects had become the more significant element. The reports written on their projects by the individual researchers constituted the bulk of the publications that appeared in the ACER's Educational Research Series. These publications began in the first year and, by the time the second annual meeting was held in August 1931, six had already appeared. It was a speedy and sound beginning to the career in educational publication which was to be one of the ACER's most important contributions to Australian education, and an important means through which it became known to educators overseas.

Before Cunningham had settled down thoroughly in his office in the T & G building, he was receiving requests for information about educational practices in America, England, New Zealand, and various other countries, and he was being asked to deal with requests for information about Australian education from overseas correspondents. He began immediately to set up a network of overseas contacts with whom he could correspond personally and who might supply journals and reports to the embryonic ACER library. It was very much a case of groping in the dark. Few Australian educators knew the names of significant research institutions and journals overseas. Even the Scottish Council for Research in Education (SCRE) was a mystery. It had been established in 1928 but Cunningham knew nothing of its activities. Accordingly he wrote to the Office of Special Inquiries and Reports, Board of Education, London, asking that his letter be forwarded to the appropriate address in Scotland.[48] In due course a regular correspondence and an exchange of publications were organized. From the SCRE and from other institutions throughout Europe and North America, reports were accumulated, correspondence entered into, and articles written and exchanged with overseas periodicals. This clearing-house function was underpinned by starting a professional library. Current and back numbers of Australian serial publications, selected overseas periodicals, sample tests of all kinds,—by 1933, 402 tests had been acquired—and recently published books were steadily accumulated, catalogued, and lent to research workers throughout Australia.

---

[48] Cunningham with SCRE, 29 September 1930, 9 December 1930, and 23 January 1931, Scottish Council for Research in Education archives, ACER archives, series 28, vol. 70.

It has sometimes been suggested that the SCRE provided the model for the establishment of the ACER. It is, however, never mentioned in the early discussions and, from the tenor of the subsequent correspondence between Cunningham and the SCRE, its very existence seems to have been only vaguely known to perhaps one or two of those connected with the ACER such as the Scot, Mackie, and Wrigley. It was not until the SCRE sent copies of its reports to him that Cunningham realized the likeness between the two Councils, and wrote to the SCRE on 9 December 1930, 'I can see from your reports that your aims and interests are very similar to our own'.

Cunningham was delighted when the ACER in 1934 was formally recognized as the national centre for educational information in Australia under the auspices of the League of Nations Committee on Intellectual Co-operation, and the directors of education concurred in the arrangement. It was, he wrote, 'perhaps the most important development for the year'.[49]

A substantial amount of the Executive Officer's time was taken up in serving on a variety of educational committees, mostly connected with various educational authorities in Victoria. It was a service that he continued to perform on both state and national levels during the remainder of his career with the ACER, and it became a pattern followed by subsequent directors and other members of the staff.

Much of the day-to-day work of the Executive Officer was the answering of a wide range of correspondence from all parts of Australia. Cunningham was a voluminous and well-informed correspondent. He wrote lucidly, expressively, and indefatigably. He reported at length to the Carnegie Corporation staff after each executive and Council meeting, and answered their queries at length in between times. In his early letters, he took to task the headmistress of the Melbourne Girls High School who had spoken slightingly of intelligence tests at her annual speech night, letting her know, 'My own view is that intelligence tests have made the most important contribution to educational science of recent years', and pointing out her misconceptions on the matter[50]; he warned an enquirer of the charlatanism of a certain vocational guidance counsellor; he advised the principal of the Emily McPherson College of Domestic Economy on the balance and arrangement of her practical and theoretical curriculum; he had an interesting exchange of letters over several months with an experimentally minded teacher in Walcha, an isolated town in the New England ranges of New South Wales, who had been collecting data on norms in all primary school subjects for the past ten years: 'I am astonished', wrote Cunningham, 'at the amount of work you have done in securing results on standardized tests'[51]; and he encouraged another researcher, Lucy Firth who, using intelligence tests supplied by the ACER, was studying success in high school in New South Wales and, in the course of the correspondence advising her on problems of technique and analysis, he produced a statement typical of his caution in dealing with research data:

---

[49] Australian Council for Educational Research, *Fourth Annual Report 1933 - 1934*, Melbourne: 1934, pp.6,8.

[50] K.S. Cunningham to Miss C.S. Montgomery 8 December, 1930, ACER archives, series 22, vol.2.

> Since investigations have shown that the norms of the Terman Revision of the Binet Test seem to hold fairly accurately for Australian children, it might not be a very unsafe assumption that the norms of group tests could be used as approximately applicable.[52]

In all of his correspondence, he argued continuously the case for the scientific study of education and for the development of more extensive and effective educational research. The whole program of the ACER—its research, publication, clearing house, and service activities—were directed to the same end. It provided a demonstration of well-constructed research, it circulated reports and information on research, and it offered continuous advice to aspiring researchers and to other educators who asked for or were judged to be in need of it.

---

[51] K.S. Cunningham and A.E. Couchman 15 April, 15 May, 4 August 1930, and Couchman to P.R. Cole, 18 December 1929, ACER archives, series 22, vol.1.

[52] K.S. Cunningham to Lucy Firth, 16 February 1931, ACER archives, series 22, vol.1.

3

THE FIRST TEN YEARS OF RESEARCH AND SERVICE

A good proportion of Cunningham's time in his first two years at the ACER was taken up with the organization of two important projects: a survey of correspondence education in Australia; and the preparation and standardization of tests in arithmetic.

Correspondence Education

In his survey of correspondence education, Cunningham in mid-1930 sent a lengthy questionnaire to the head teachers of the six correspondence schools, one in each State, visited four of them, and studied recent reports made on the work of the schools in Western and South Australia. From these data he sketched the 14 years history of the movement, gave details of its achievements, pointed out some of its features of particular interest, and commented on its problems and fundamental principles.

He wrote factually and appreciatively of the work: 'The growth of facilities in the various Australian States for teaching young children by correspondence is nothing less than an educational romance'.[1] He explained that each correspondence school was run by a state education department, and was housed in a city school staffed by perhaps 80 teachers surrounded by books and papers but no pupils. The children regularly posted in their work, and received back from their invisible teachers correction, assessment, encouragement, and further graded assignments. 'There is not the hum of children's voices usually associated with the work of an ordinary school, but there is a marked atmosphere of quiet busy efficiency.'[2]

---

[1] K.S. Cunningham, *Primary Education by Correspondence*, (ACER Educational Research Series No.3), Melbourne: MUP, 1931, p.9.

[2] ibid., p.15.

At the end of 1930 there were 13 284 pupils, 1.5 per cent of the elementary school population of Australia, enrolled in the six correspondence schools which, since their establishment, had provided primary schooling for some 55 000 children. Pupils were required, for the most part, to live three miles or more from the nearest rural school, or to have some disability which made it difficult for them to attend school. Additional facilities were available in each State for some secondary and technical courses. Pointing out that, for the whole of correspondence education in Australia, the average number of pupils per teacher was 55, he showed from his survey that each teacher in a correspondence school was dealing with very large class sizes, and that the cost per pupil, even when the State paid postage and supplied free textbooks, was considerably less than for children in the ordinary primary schools, and was probably less than half that of pupils in the small primary rural schools. He found that somewhere about 50 per cent of correspondence school pupils had never attended an ordinary school, and that about 25 per cent would probably complete their primary education entirely by correspondence.

He summed up his research by indicating some of the difficulties of correspondence education, such as the isolation of pupils and the climatic and domestic disabilities under which many of the pupils suffered. He pointed out the importance of a teacher's personal involvement with a pupil, the significant role played by the child's mother in ensuring the success of the correspondence process, and the possible impact of rural life made by the dispatch of books from the school library, the development of a rural school magazine, and the encouragement of home gardening by the supply of plants, seeds, and advice. He took particular care to point out possible beneficial implications for the ordinary state schools. He suggested that pupils in the ordinary schools lacked opportunity for independent thought, the exercise of initiative, and self-reliance. All three virtues were characteristic products of correspondence education from whose methods other schools might greatly benefit. In particular, Australian teachers as a whole might well study the way correspondence school assignments were constructed and used to cater for individual differences and for the varying circumstances of each child.

The survey was a useful one and was attractively written. It was not a major nor profound piece of research. It served to introduce educators in Australia and overseas to a unique local educational development; it demonstrated the ACER's interest in working on an Australia-wide research topic; and it gave notice of the moderately critical and reformist tendency that was to be characteristic of Cunningham's work and of the ACER's publications.

In 1949 S.A. Rayner, in a comprehensive and workmanlike survey, revised, updated, and considerably extended the report on correspondence education. He gave a more extensive history of it, included the work done in technical, teachers college, and university courses, and added a chapter on correspondence education in New Zealand.[3]

The Standardization of Achievement and Intelligence Tests

Arithmetic

While the survey on correspondence education was proceeding, preparations were being made for a national survey of achievement in primary school arithmetic. The main aim was to produce a series of age norms in arithmetic which would indicate to teachers the average performance by pupils to be expected at various ages throughout the primary school. It was to be followed immediately by a similar study of primary school reading. This kind of national survey was to be undertaken again by the ACER, in the same substantial way but with added sophistication and some change of purpose, in the mid-1940s and mid-1970s.

The report of the first study was strikingly introduced with the words: 'In October 1931, the Australian Council for Educational Research conducted an investigation into one phase of educational achievement on a scale hitherto unattempted in Australia'.[4] It was designed by Cunningham who also wrote the final report; the statistical analysis which formed the core of the work was done by W.T. Price, the first teacher seconded to the ACER. He came from the Victorian Education Department, and was joined a year later by W. Wood, seconded by the Queensland educational authorities.

---

[3] S.A. Rayner, *Correspondence Education in Australia and New Zealand*, (ACER Educational Research Series No.64), Melbourne: MUP, 1949.

[4] K.S. Cunningham and W.T. Price, *The Standardization of an Australian Arithmetic Test*, (ACER Educational Research Series No.21), Melbourne: MUP, 1934, p.9.

When the proposal was first canvassed, the NSWIER reminded the Executive Officer that it had done a similar standardization in arithmetic with grade norms for New South Wales schools in 1924 and had updated it in 1929. Cunningham in July and August 1930 sought information and copies of the New South Wales tests as a basis on which to develop his program, hoping to be able to extend it to the other States. During the course of the next 12 months, he constructed and administered trial tests in a number of Victorian schools and sent his work for comment to the Institutes. The New South Wales group were very critical of it and, in consequence, Cunningham went to Sydney in July 1931 for consultation. A variety of modifications was made, a second trial testing was done to establish the order of difficulty of the items and the equivalence of two forms of the test, and the instruments were ready for the testing program's starting time in October.

There were six tests:

(a) speed and accuracy in addition;
(b) speed and accuracy in subtraction;
(c) speed and accuracy in multiplication;
(d) speed and accuracy in division;
(e) mechanical arithmetic;
(f) problem arithmetic.

Each test had two Forms, A and B, of approximately equal difficulty and similar construction. The first four tests were speed tests to be completed in three minutes each; for the last two there was no prescribed time limit. The tests covered a range of difficulty from Grade 3 to Grade 8 of the primary school, and each test started with simple items and increased steadily in difficulty.

Except in Victoria where the ACER staff did the selection, the State Institutes chose the schools that were used in the project. In total there were 39 939 pupils in 700 schools, divided between the States on the basis of school population. The schools were classified by size and selected at random within each category. All the pupils came from state schools except for the inclusion of nine private schools with 1002 pupils in South Australia.

The tests were distributed to the schools, administered and marked by the school staff, and returned to the ACER for analysis. Results were analysed for each test, each State as well as Australia as a whole, each category of school, each age, grade, and sex. The Victorian Railways hired out a punch-card machine for processing the results and, although the work was considerable and the staff small, the work was done expeditiously.

Price, a science graduate of the University of Melbourne who had just completed his training at the Melbourne Teachers College, joined the staff for his two-year secondment on 27 January 1931. He was a competent mathematician who took charge of the task of analysing the results. Most of the period of his two-year secondment, until April 1933, was spent on this particular piece of research, and he managed to have national and state age and grade norms available by mid-1932, although the final report did not appear until 1934.

During the course of the research, Cunningham went overseas for seven months on a grant from the Carnegie Corporation, and Price was left in charge assisted by Wood and the secretary, Miss Campbell. Wood, according to Cunningham, had 'become a very helpful addition to our staff', and, in due course, was to become the first head of the research and guidance branch of Queensland's education department. Miss Campbell wrote frequently to Cunningham on his travels with information on their activities and snippets of gossip. 'I hope', Cunningham wrote as he was heading for the USA, 'that things are going fairly well with you all—that Mr Wood, for example, is not still complaining about your methods of making tea.' Miss Campbell duly provided her quota of news, and added that Mr Wood's complaints had ceased and so had the tea: 'You will be sorry to hear that since your departure the morning and afternoon tea has been cut out of the day's programme . . . When I am particularly thirsty I can always run downstairs to the tea room'.[5]

In the analysis of the results, several interesting matters appeared. There was no significant difference between the performance of pupils in large urban and small rural schools, or in state and independent schools; and boys and girls performed equally well on the speed and accuracy tests, but boys were slightly superior in mechanical arithmetic and clearly superior in dealing with the tests of arithmetical problems. There were positive correlations between performance in arithmetic and intelligence, ranging from fairly low with the test in addition rising through subtraction, multiplication, division, and mechanical, to a high positive correlation with the problems test. There were discernible differences in performance between the States. The research, taking all age levels into account, reported a difference of 13 months in educational age between States in norms derived from a composite score for the six tests. Queensland children, in particular, returned a consistently high performance, the Queensland age norms being highest of all States on all tests. As a partial explanation for this, it was pointed out that schools in Queensland devoted 'a considerably longer time to arithmetic in the first three grades tested', where the basic four processes are learnt, than did the schools in the other States, that they tended to introduce various arithmetical concepts at an earlier age than most other States, and that they were oriented to a scholarship examination, for high school entry, in which arithmetic was one of the main subjects.[6]

---

[5] Cunningham to Miss Campbell, SS Mariposa, 23 September 1932, and Miss Campbell to K.S. Cunningham, 7 October 1932, ACER archives, series 32, vol.42.

The study commended itself to the educational authorities throughout Australia by producing soundly established norms for use by classroom teachers in one of the basic primary school subjects, and thereby helped to demonstrate the usefulness and practical good sense of the ACER. It made the point that a subject such as arithmetic was a composite of different skills and processes, and that a pupil's performance differed in each area; consequently methods of teaching and testing needed to be varied according to the process that had to be learnt. It demonstrated to Australian educators that by reasonably simple statistical means, it was possible to select basic common elements that had to be mastered, and to indicate the standards that teachers could expect pupils to attain at different ages in various school grade levels. Later Cunningham was to state: 'We developed a good deal of emphasis at the ACER on measuring devices . . . you can't get anywhere until you can really set up criteria'.[7] The arithmetic testing project was the first substantial step in that direction. A reviewer in the *British Journal of Educational Psy-*

---

[6] Cunningham and Price, op. cit., p.62.

[7] K.S. Cunningham, interview with B. Bessant, p.23.

chology wrote that the work was 'probably the most precise of all standardized arithmetic tests on a large scale' and that it 'gives an example of good scientific method in educational research'.[8] It was a positive and demonstrable move towards developing a body of knowledge of and opinion about Australian education that could be seen to be based on evidence authenticated by careful measurement.

Reading

The primary school arithmetic project was followed immediately by a program on primary school reading. Lois W. Allen, who in South Australia had assisted in the selection of test items in the arithmetic project and had supervised the testing in the South Australian independent schools, started work in 1931 on a set of tests for young children in oral reading and in 1933 was able to provide individual reading tests for word familiarity, speed of reading, and comprehension, and to compile tentative norms for them. They were published by the ACER in 1935. Ruth Thomas in 1931 in Western Australia began to work on items for the silent reading test.

The main project to develop national norms for primary school children in silent reading proceeded much as the previous project on arithmetic. Using Gates's work on the testing of reading in the USA as a basis, five sub-tests were devised:

(a) word knowledge;
(b) speed of reading;
(c) reading of general significance;
(d) reading to note details,
(e) reading for inference.

The test was applied on 10 October 1933, in two equivalent Forms, A and B, to 32 624 pupils throughout Australia, by the teachers in 436 schools who administered and scored the test according to directions sent to them by the ACER. Wood, who succeeded Price as the senior research assistant early in 1933, was principally responsible for devising the tests, organizing the testing program, and starting the analysis. He was succeeded in February 1934 by G.A. McIntyre, a secondment from Western Australia who was a science graduate of the University of Western Australia and a first-rate statistician. McIntyre remained until 1940. During his secondment, Tate was informed by the Western Australian Director of Education that, on his return from the ACER, McIntyre would have to return to the status of monitor, the most junior rank in the service.[9] He was so valuable to the ACER that, at the end of his two-year secondment, he was offered the post of full-time research officer, and became the first permanent researcher other than the Executive Officer to be appointed to the staff of the ACER. Subsequently he joined the CSIR as a biometrician.[10]

---

[8] Review of *The Standardization of an Australian Arithmetic Test*, by K.S. Cunningham and W.T. Price, *British Journal of Educational Psychology*, 1936, 6(2), 217–18.

McIntyre was an important acquisition for an institution which placed a high value on measurement in education and yet lacked a trained statistician. He gave a professional solidity and finesse to the statistical treatment of data in subsequent research work throughout the 1930s. The difference was immediately apparent between the pre-McIntyre report on arithmetic in 1934 and the reports on reading for which he and Wood were responsible in 1935, and on intelligence for which he was solely responsible in 1938. The pre-McIntyre arithmetic report was competently done and lucidly written; the other two, on the standardization of reading and intelligence tests, were rigorous pieces of statistical analysis spiced with subtle comment on the limits and possibilities revealed by the analysis. The report on arithmetic was important to teachers and administrators who wished to know how the standardizing process was carried out; the reports on reading and intelligence testing were important for the same reason but were, in addition, significant documents for the research worker who wished to learn the questions to ask, the extent to which they might be answerable, and the statistical techniques that it might be feasible to use.

The reading report provided age and grade norms for the whole test and each sub-test for Australia and for each State. It revealed considerable differences between the States, the greatest between any two States amounting to ten months of average progress. South Australian children consistently performed best in all parts of the test. It was found as a partial explanation of this superiority that school library facilities, though not impressive in any State, were greatest in South Australia, that the hours given to the teaching of reading were more than in any other State, and that South Australian children commenced school at an earlier age than those of any other State except Queensland. Children in small rural schools did less well than those in large schools, and there was no significant difference in performance between the pupils of state and independent schools. There was little difference between the sexes; girls, however, tended to read faster than boys, and boys to perform better on the tests of reading, to note details, and to have a wider scatter of results than girls. A discussion of the validity of the test in the last chapter made a thoughtful conclusion to the report.

---

[9] J.A. Klein to F. Tate, 26 November 1934, ACER archives, series 9, vol. 51.

[10] G.A. McIntyre, 1909–74, joined the Division of Mathematical Statistics in CSIR in 1940 and remained there for 34 years until his retirement. He was involved in a wide range of agricultural and biological work in Australia and New Guinea, and was described in *The Canberra News*, 15 January 1974, on the occasion of his death as Australia's leading biometric consultant.

Between 1934 and 1936 two more tests were standardized. R.W. Stanhope, a New South Wales high school teacher, had done a survey of chemistry teaching in New South Wales which was published by the ACER in 1932. He continued with his interest and produced a chemistry test which McIntyre assisted in standardizing for Australian schools. At the same time, a spelling test, consisting of six lists of 50 words, was devised, standardized, and published for the use of Australian teachers in 1935.

Intelligence

The third major project in the standardizing program, following the arithmetic and reading ones, dealt with tests of intelligence. Two tests, a verbal and a non-verbal one, were involved. The Otis Self-Administering Test, Intermediate Form, which was widely used in the USA, was selected as the verbal test, and work was begun in 1934 on the preparation of a non-verbal test. This task fell largely to a new research assistant, D.J.A. Verco, a young man seconded from the staff of the Sydney Teachers College at the beginning of 1935. Verco had majored in psychology at the University of Sydney, and was later to head the research branch and eventually become Director-General of the New South Wales Department of

Education. He devised items and tried them out in various state primary schools and on small church and YMCA groups and, being a prudent and foresightful person, was reputed before his marriage to have tested the parents and family of his future wife. The general conduct of the project fell to McIntyre who also wrote the final report in 1938.

The team of McIntyre and Verco was a formidable one. It was Cunningham's preferred combination. In 1933 he had written to the Western Australian Institute:

> A good deal of the work in the office is statistical in character, and it is a handicap if the student is not well trained on the mathematical side. Next to this in importance I would place a training in psychology and in educational theory.[11]

McIntyre fulfilled the first of the requirements, Verco the second. They were supplemented in 1937 by the appointment of C.W. Branson on secondment from South Australia. Branson subsequently became a prominent public servant and general manager of the South Australian Chamber of Commerce and Industry.

The intelligence tests were administered to 30 427 school children aged 8–14 in state schools throughout Australia in March 1936. The sample was selected by the ACER staff to provide reasonable representation for each State, for large, medium, and small-sized schools, for age and grade levels and sex. Careful checks were made on the adequacy of the sampling and appropriate adjustments were made to get the sample to conform to state age-grade tables at the time of testing. In the event, the research concentrated on the age range 8–13 years. The tests were administered and scored by the teachers. Information was also provided to the ACER on the occupation of each child's father and the nature of the area in which the school was situated.

National norms were calculated for children aged 8–13 and extrapolated to age 16 for both the Otis and the Non-Verbal Tests. Norms for each school grade, also, were estimated and confirmed by the match obtained when the two tests were applied to all Grade 6 children in the New South Wales primary final examination at the end of 1937. On the assumption that the median IQ score for each age group would be 100 with a standard deviation of 15, which overseas research practice suggested, percentiles corresponding to various IQ values were calculated, and the Otis and Non-Verbal Test scores were converted to IQs.

---

[11] K.S. Cunningham to H.L. Fowler et al., 12 September 1933, ACER archives, series 20, vol.58, filed under WA.

The research team conducted three small experiments to determine the effect of practice and coaching on the test results and found, with children 10–13 years of age, a moderate practice effect when the tests were repeated on the following day or even a year later, and a substantial gain in scores when the pupils were deliberately coached with explanations and practice on similar items. Comparisons were made between performance on the Otis, Non-Verbal, and six other reading, arithmetic, and intelligence tests, by administering the tests to a small sample of 11-year-old children in a school in Hobart. The correlations between the tests were factorized by the Thurstone Centre of Gravity Method. The analysis showed an expected degree of association between the verbal intelligence and silent reading tests; there was also a reasonable association between the Stanford-Binet intelligence test and the ACER Non-Verbal one. McIntyre reported:

> If the magnitudes of the projections on the first axis are taken to represent the demands of various tests on general intelligence or to indicate the saturation of the tests in Spearman's 'G', then the parts of the Non-Verbal Test compare favourably with the Stanford-Binet.[12]

This was the first time that the technique of factor analysis had been used in any substantial piece of educational research in Australia. In the year that this research was published, C.A. Gibb, recently appointed an assistant lecturer in psychology at the University of Sydney, gave a lecture to the NSWIER on 'An introduction to factor analysis—A new technique in psychology'. Factor analysis had been introduced into mental measurement with Spearman's article in 1904, 'General intelligence objectively determined and measured'. In a modest way it had appeared in W. Brown and G.H. Thomson's textbook *The Essentials of Mental Measurement* in 1921, but it did not enter the mainstream of educational and psychological research methods until the mid-thirties when Thurstone and Hotelling in the USA, and Thomson and Burt in the UK published significantly in the area.[13]

---

[12] G.A. McIntyre, *The Standardization of Intelligence Tests in Australia*, (ACER Educational Research Series No.54), Melbourne: MUP, 1938, pp.53–4.

The research exposed differences between the States. McIntyre wrote:

> There is a strong tendency for the order of merit of the States on each of the tests to remain roughly constant with South Australia, Queensland, and Victoria first, West Australia and New South Wales next, and Tasmania last.[14]

The difference in median scores at the age of 10 years between Tasmania and South Australia amounted to approximately seven months on the Otis test, or five points of IQ. There were the expected differences between city and country children, the pupils in small rural schools doing significantly less well than those in all other schools. Significant differences also emerged according to the socio-economic status of the pupil's father, showing, when an analysis was made in two States, 'a rise in mean score through the occupational grades from the labourer to the professional worker'[15], with a range in South Australia of 14 and in Tasmania of 11 points of IQ on the Otis test. Sex differences were small. The mean score for 10- to 13-year-old girls on the Otis was slightly higher than that for boys; boys scored slightly higher on the Non-Verbal Test, and on both tests, their scores were more widely scattered.

In planning the standardization program the newly established New Zealand Council for Educational Research (NZCER) had been invited to join. In New Zealand 25 000 children between the ages of 10 and 13 were tested with both the Otis and Non-Verbal Tests. When results were compared, it was found that the New Zealand mean and median scores were slightly and uniformly higher than the Australian, and the differences between New Zealand boys and girls was roughly of the same order as for Australian children.

---

[13] L.L. Thurstone published *Theory of Multiple Factors* and *A Simplified Multiple Factor Method* in 1933, and subsequently *The Vectors of Mind* in 1935 which gave a complete exposition of his centroid method, and H. Hotelling published his articles on *Analysis of a Complex of Statistical Variables into Principal Components* in 1933 and *Simplified Calculation of Principal Components* in 1935; G.H. Thomson wrote many papers leading up to the book *The Factorial Analysis of Human Ability* in 1939, and C. Burt, similarly, contributed a considerable number of articles before his *The Factors of the Mind* in 1940. J.P. Guilford, *Psychometric Methods*, New York: McGraw Hill, 1936, was for many years the most widely used textbook introduction to factor analysis.

[14] McIntyre, op. cit., p.62.

[15] ibid., p.73.

This standardization program by the ACER was the forerunner of a more extensive use of intelligence tests in Australian schools. In an article in 1936, Cunningham had deplored the reluctance of Australian educational authorities to follow overseas precedents in this area. 'No Australian authority', he wrote, 'has yet made use of such tests except in experimental and tentative fashion.'[16] In 1938 the breakthrough came when the New South Wales Department of Public Instruction requested the ACER to prepare an intelligence test for use with sixth-grade primary school children.

Studies of Australian Education

The Primary School

At the first Council meeting in August 1930, P.R. Cole proposed a study of the primary school curriculum by 'mature' people. It was agreed to form a committee to draft a scheme. After some consultation with the Institutes, a number of essays were commissioned from prominent educators on aspects of the primary school curriculum. These studies were directed and edited by P.R. Cole, and published by the ACER in 1932. Reporting to the Council in that year, Cole said of the manuscript: 'It contains results of experiments and investigations of a number of leading educationalists in Australia, and it gives a wonderful background to all revisions of the curriculum'.[17] The NSWIER in 1933 voted the book 'a distinct success in form and quality', and Cole, the president of the Institute gave his presidential address on 'The primary school curriculum in Australia.'

The book brought together contributions from Tate, Board, and Andrews, three of Australia's leading educational administrators; from Mackie, Browne, Lovell, Cameron, prominent academic commentators on education; and from McRae, Parker, and Cunningham whose interest lay in educational research. Despite this collection of Australian educational talent, it was not an original or influential book. It was an effort to do three things: to find out the current state of the primary school curriculum throughout Australia; to make some assessment of its condition; and to act as a stimulus to reform. The authors managed to present a useful picture of existing practices. Several of them conducted small surveys of subjects taught, time allotments, and materials available, and built up a picture which, interestingly, showed considerable differences in practices not only between States but also between schools within the same State.

---

[16] K.S. Cunningham, A critical account of Australian education, *Year Book of Education* (London), 1936, p.630.

[17] ACER Annual Meeting, The Teachers College, Sydney on 15th and 16th August, 1932, verbatim report, p.2.

The assessment was mainly subjective. It was largely a matter of putting forward a set of reasoned principles on curriculum construction and judging the current state of development in the light of such criteria. In the process, Tate made an interesting statement on the advantages and disadvantages of centralization in educational administration, Lovell an entertaining plea for 'original thinking, creative effort, aesthetic sensibility, and character'[18], and Mackie a solid argument for more attention to children's needs, more flexibility in the primary school, and more tolerance for innovators. Most of the writers came forward with suggestions for reform. Cunningham made a strong appeal for the introduction of standardized tests, and Cameron for more learning and less teaching in primary schools. The most stimulating of all the contributions was that by Browne who wrote a chapter summarizing his ACER publication *The Case for Curriculum Revision*; it was a spirited plea for more activity education and a carefully worked out plan of a possible process of curriculum revision.

Secondary Education

Three years later, in 1935, the second series of studies appeared. Again Cole planned and edited the work of a number of Australian educators who described and analysed the education of the adolescent. It was a very timely publication.

Secondary education had been a part of the structure of public education in most of Australia for only about 30 years. Since World War I and especially in the 1930s, opinion throughout the developed nations of the world on the nature of secondary education had been changing. Cole expressed it well in his introduction to the book when he wrote, 'The old theory of secondary education was that it should select and train leaders; the new view is that it should embrace and socialize all'.[19] Nevertheless, in the first sentence of his chapter on types of curricula for secondary schools, J.A. Seitz, chief inspector of secondary schools and, later, Director of Education for Victoria, announced that the aims of secondary education were better citizenship, the provision of further opportunities for development, and the selection of 'those who by intellect and ability will be competent to direct and govern the society to which they belong'[20]; and J.R. Darling, headmaster of Geelong Grammar School, wrote that the common view was that 'secondary education is that extra training to the mind and body which a parent is willing to give his son if he can afford it'.[21] Clearly there was need for a comprehensive discussion on the purposes of secondary education in what Cunningham in his chapter described as 'the present confusion in secondary education'.[22]

---

[18] Australian Council for Educational Research, *The Primary School Curriculum in Australia*, Melbourne: MUP, 1932, p.48.

The contributors were similar to those in the book on the primary school curriculum and about half of them were identical. Board and Tate looked at the background and administrative problems, Lovell at the characteristics of adolescence, Mackie at teacher training, Seitz and Cameron at curricula, Cunningham at examinations, Harris, of the Sydney Teachers College, at legislation connected with secondary education, Fletcher, who later became Director of Education for Tasmania, at school buildings, and Darling at current trends and problems. There was no agreed-upon or coherent view put forward by the contributors. There were considerable differences expressed on the nature of secondary education and no effort to resolve them.

---

[19] P.R. Cole (Ed.), *The Education of the Adolescent in Australia*, Melbourne: MUP, 1935, p.xii.

[20] ibid., p.100.

[21] ibid., p.321.

[22] ibid., p.228.

The most extensive contribution was that by Seitz. His chapter, which occupied almost a third of the book, was an important review of secondary school curricula. It analysed students' performances at public examinations in each of the States, listed the subjects and time allotments for them in the different types of schools in all States, looked at the differences between the States in every secondary school subject, and provided a number of interesting examples of experiments in different ways of organizing the curriculum currently operating in some Australian schools.

On the whole it was a disappointing book which did little to stimulate thought about secondary education.

Rural Education

Cole also edited the third book in the series, *The Rural School in Australia*, published in 1937. A similar team and format were used. Braithwaite and McRae analysed, from 120 schools in New South Wales and Victoria, time allotments for subjects, as they had previously done for the primary school book, and provided samples of time-tables from various schools. Wyndham, then research officer and later Director-General in the New South Wales Department of Education, provided a useful statistical analysis of rural schools and pupils, from which it emerged that 90 per cent of primary schools and half the school population in Australia were rural and, in numbers, had been remarkably stable for the preceding ten-year period from 1926 to 1935. Osborne, senior inspector of primary schools in Victoria, and Parker of Tasmania, in their respective chapters, looked at aspects of the curriculum. Parker provided a somewhat inspirational advocacy for activity methods and greater individualization in rural school teaching, balanced by close study of and association with the local rural community so that education in rural schools would become 'the expression of all that is best in rural life'.[23] He also gave early information on the new development in Tasmanian education, the area school introduced in 1936, that was to be a major innovation in Australian rural education.[24]

---

[23] P.R. Cole (Ed.), *The Rural School in Australia*, Melbourne: MUP, 1937, p.133.

[24] ibid., pp.118 ff. H.T. Parker subsequently was one of the two authors of one of the main sources of information on this development, the book issued by the

The three books on primary, secondary, and rural education were useful compilations. They were solid accounts of the current state of most aspects of Australian education. They provided reliable information and intelligent analysis both for contemporary educators and later historians. They also made known the opinions of leading Australian educators on some of the fundamental questions of administration and curriculum. They were, however, not very stimulating books. Perhaps the most lively of them was the rural one, but it did not sparkle nor did it provide fundamental and challenging ideas for Australian educational students to work on as did the other ACER publication of that time, *Education for Complete Living*, that came out of the ACER's involvement in the 1937 NEF Conference.

Reviews of Australian Education

In 1938 the first of a series of general reviews of Australian education was prepared by the headquarters staff of the ACER. The *Review of Education in Australia, 1938* was intended to be the first of a series of annual reports; but, in the event, it was followed by four others at irregular intervals for the years 1939, 1940–48, 1948–54, and 1955–62. The 1938 volume was prepared mainly by G.A. McIntyre and W.C. Radford under Cunningham's direction, and the 1939 one by Cunningham and J.J. Pratt. Radford was seconded from the Victorian Education Department for 1938–39, and Pratt from the Queensland Department of Public Instruction for 1939–40.[25]

A previous comprehensive survey of Australian education, *Education in Australia*, had been published 12 years earlier, in 1927, and edited by G.S. Browne. The ACER Review in 1938 was similar but less extensive. It added, however, other useful features. There was a short account of the Catholic system of education, a well-balanced statement and evaluation of recent developments in

---

Tasmanian Education Department, *The Area School*, Hobart: Govt Pr, 1942.

[25] Radford was to succeed Cunningham as Director of the ACER in 1955, and Pratt returned to Queensland, established a research unit in the education department, became Deputy Director of the Commonwealth Office of Education, Professor of Education at the University of New South Wales, and finally chairman of the Higher Education Board for New South Wales.

education throughout Australia, and a superb bibliography of Australian education which revised and extended the one that had appeared in the ACER's second annual report. The 1939 Review provided a detailed account of the main educational activities of 1939, and supplemented it with several substantial chapters on significant aspects of education—educational administration, educational statistics, agricultural education, and handicapped children—each by a separate author. Cunningham contributed the lengthy statement on educational administration. It was a fine analysis of the nature of centralized administration, of the function of the state in education, and of possible future administrative reform. The chapter was a further development of the critical analysis of Australian education that he had started in a contribution to the *Year Book of Education* in 1935 and extended in a further article in 1936.[26]

The two Reviews and the three volumes edited by Cole were the most prominent examples of the ACER's effort to implement its policy of becoming the national clearing house for educational information. They collated a variety of information from official publications, research reports, and personal experience on Australian education to present an intelligible and sometimes critical view of the whole. They provided basic information through which Australian and overseas educators could study Australian education, and they did much to enhance the image of the ACER as an institution with an Australian outlook.

The ACER and the Establishment of the New Zealand Council for Educational Research

Cunningham became mildly interested in the possibility of helping to develop a research institute in New Zealand based on funds from the Carnegie Corporation. In 1931 he wrote to Keppel asking whether the Corporation would be willing to increase the grant slightly to enable the ACER to make research grants to New Zealand applicants and to set up some form of advisory body in New Zealand.[27] Keppel replied that he and James E. Russell thought the plan a good one, but that the initiative must come from New Zealand.

---

[26] K.S. Cunningham, Australia, *Year Book of Education* (London), 1935, 260–72. ——, A critical account of Australian education, *Year Book of Education* (London), 1936, 618–40.

[27] K.S. Cunningham to F.P. Keppel, 2 May 1931, Carncor archives.

Since Russell's visit in 1928, a New Zealand connection had been established with the Corporation, travel grants had been made, and a number of educators, stimulated by the establishment of the ACER, had shown interest in the possibility of an educational research organization for New Zealand. In November 1931 L.D. Coffman, the president of the University of Minnesota, was sent by the Corporation to New Zealand and Australia on a lecturing and investigatory tour similar to James E. Russell's earlier visit. Cunningham suggested to him when he visited Australia that there should be a New Zealand Institute for Educational Research parallel to the Australian State Institutes as a part of the ACER organization which would then be an Australasian Council for Educational Research. Coffman, however, in his report pointed out with a little exaggeration that the distance from New Zealand to Australia was almost as far as from England to New York and, further, that there was a substantial degree of national pride separating the two nations. He explored with educational authorities and with the Governor-General the possibility of establishing a separate council, and recommended that the Corporation should consider making a grant to that effect and that Cunningham should be appointed as an adviser to the New Zealand body for a year or two. Coffman in May 1932 was asked by the Corporation to write to the Governor-General suggesting that Cunningham should visit New Zealand to make a preliminary survey and report of the situation with appropriate recommendations. The letter was passed to the New Zealand Minister of Education who turned the proposal down.[28]

In September 1932, Tate and Cunningham consulted briefly with several educators in Auckland who met their ship on their way to America. In the next month, October 1932, D.M. Rae, Principal of the Auckland Training College, acting on behalf of a group of nine which included professors of education, heads of training colleges, and principals of schools, submitted a formal proposal to the Carnegie Corporation for a grant to establish a research council in New

---

[28] L.D. Coffman to Lord Bledisloe, 2 May 1932; and Minister of Education, NZ, to L.D. Coffman, 29 June 1932, Carncor archives.

Zealand. He pointed out the beneficial effect of the ACER on Australian education, and suggested that Tate and Cunningham, on their return from their current trip to the USA, should be commissioned to spend a month in New Zealand 'in order to organize such a Council'.[29]

Tate and Cunningham discussed the New Zealand situation with Coffman when they visited Minneapolis in November 1932. Subsequently they spoke with John Russell, who explained that the feeling in the Corporation was that the New Zealand council should not be a branch of the Australian enterprise, and with Keppel, who agreed to act on their recommendation that a committee of three New Zealanders should be invited to make a case for New Zealand.[30] Tate, Lovell, and Cunningham were consulted by the committee during the next few months, and by September 1933 an appropriate plan was received by the Corporation. 'We are much pleased', Keppel wrote to Cunningham, 'with the proposal from New Zealand which has just come in.'[31] In accordance with the plan submitted to them, the trustees on 19 October 1933 agreed to provide for five years a sum of US$14 000 for research and US$3500 for general expenses per annum and, in 1934, the NZCER began its work.[32]

A brief from Keppel to the Corporation's trustees began with the words, 'The success of the Australian Council for Educational Research has not gone unnoticed in the sister Dominion of New

[29] Submission to the President, Carnegie Corporation by D.M. Rae, 14 October 1932, Carncor archives.

[30] Tate and Cunningham put forward the names of D.M. Rae, F. Milner, Rector of Waitaki Boys High School, and T.A. Hunter, Vice-Chancellor, University of New Zealand. Keppel accepted the advice and invited the three men to become the committee. L.D. Coffman to F.P. Keppel, 3 November 1932; memorandum of interview of J.M. Russell with F. Tate and K.S. Cunningham, 2 December 1932, and 12 December 1932, Carncor archives.

[31] F.P. Keppel to T.A. Hunter, 15 September 1933; and F.P. Keppel to K.S. Cunningham 14 September 1933, Carncor archives.

[32] In the same year, the South African Council for Educational and Social Research came into existence. It was an outgrowth of a governmental National Bureau of Educational and Social Research dating from 1929 which was expanded into the Council on receipt of a grant from the Carnegie Corporation in 1934.

Zealand'; and the establishment of the NZCER was obviously modelled in many respects on the ACER's experience. The initial exploration by a leading American academic, the appointment of an exploratory committee of three, the form of annual funding with its division between research and administrative expenses, an offer from the Corporation to fund a visit to the USA by two potential candidates for the Executive Officer's job, the advice in the letter of offer from the Corporation 'against over-emphasis on research of a sterile sort' and an encouragement to undertake 'a kind of service which ordinarily is not rated as research', even the choice of terms, 'Executive Officer' and 'Council for Educational Research', described in the trustees' brief as being organized 'along the lines of the Australian Council for Educational Research', were all part of the pattern which had been worked out to the Corporation's satisfaction in setting up the ACER.[33] The NZCER, however, even if it had much of the appearance of the ACER and studied its activities with care, was wholly a local product, designed, set up, and run by New Zealanders, and it developed, distinct from the ACER, its own ideas on publication policy, educational service, and the support of research.

It could be said nevertheless that the ACER by its example and by its advice played a substantial role in the establishment of the NZCER, and it was therefore not surprising that two of the early notable activities of the NZCER were linked with the ACER: the standardization of two group tests of intelligence in 1936, and the NEF Conference in 1937. Thereafter the contacts, though friendly and at various times close, were somewhat irregular and unsystematic.

In 1950 the Corporation, aware that the contacts between the two Councils were somewhat desultory, made a small grant of US$3000 to each body to promote closer relationships. The money was intended to help the officers of the two institutions visit one another, to promote the exchange of staff, and perhaps to build some degree of co-ordination between the work of the two Councils. Several visits took place during the next few years. Later, during the 1970s, visits were much more frequent. There was collaboration on some testing programs, and each acted as the other's agent from time to time. The fund was replenished occasionally by small amounts, and has remained in existence to the present time.

---

[33] Memo to trustees 19 October 1933; F.P. Keppel to T.A. Hunter, 25 October 1933, Carncor archives.

Educational Research Series

During its first ten years, the 60 or so publications of the ACER Educational Research Series covered an interesting range of research activities. Most of the reports were not of great significance. Peter Sandiford, a well-known Canadian educator who directed a department of educational research at the University of Toronto, let Cunningham know that many of them were no more than the sorts of exercises he would expect from graduate students. 'You may be justified', he wrote, 'in printing all these things in Australia, but in Canada it would be looked upon as a waste of money.' He went on to point out that in Canada they did not, like the ACER, undertake projects that were not strictly scientific research. 'We think', he tactfully remarked, 'that a small amount of work well done is of more permanent value than the covering of a wide field in a somewhat superficial manner.'[34] Some in fact could scarcely qualify as research. The reader at the Carnegie Corporation when asked by Keppel to comment on a number of the ACER's publications in its research series in 1932 bluntly stated that, though some might be interesting and useful in the Australian context, none of them was the product of research. It happened that two of the very best in the whole series appeared in that year, viz G.S. Browne, *The Case for Curriculum Revision*, and H.S. Wyndham, *Class Grouping in the Primary School*, and Wyndham's was certainly a piece of sound research. But 12 reports were published in 1932 and neither Browne's nor Wyndham's book was included in the list that was passed on to Keppel's reader who was undoubtedly making a significant point. Of the 60 volumes that were published up to 1940, probably about 39 would have been based, for the most part, on some kind of research. Six were pieces of historical research, 11 were surveys by questionnaire and interview, eight had an experimental design, and the remaining 14 were empirical analyses.

The first ACER publication, Educational Research Series No.1 in

---

[34] P. Sandiford to K.S. Cunningham, 22 October 1936, ACER archives, series 28, vol.73.

1930, was C. Fenner and A.G. Paull, *Individual Education*, a paper read to the education section of the Australasian Association for the Advancement of Science in Brisbane in that year. Cunningham had gone to the conference to speak on the functions and prospects of the newly established ACER, had been impressed with Fenner and his paper, and had arranged for its publication. It was an account of an experiment in individualizing the process of learning and teaching by using a modified Dalton Plan. The scheme was well developed and had been operating in a South Australian technical high school for the past four years.

This little book, though not in itself of great significance, did reveal something of the way in which the research series was to be managed and developed. It was to be very much Cunningham's own responsibility. He chose Fenner and Paull's book, and he made the decisions on all the other publications in the series except those, such as Cole's three surveys, that had been commissioned by the executive or Council. He acted as editor for each book, indefatigably correcting the author's writing style, checking his calculations, advising him on statistical techniques, and examining carefully his inferences and conclusions. Even his old friend and well-established researcher, H.T. Parker, did not escape his critical eye. Parker's manuscripts received the benefit of extensive discussion and editorial correction. In 1933, for example, he wrote:

> Under separate cover I am returning your report on 'The Development of Intelligence in Subnormal Children'. For your consideration I have made comments in pencil at all the points where there seemed to me any possibility of misinterpretation.[35]

On another occasion he had McIntyre send a lengthy statement to Parker evaluating his statistical procedures.

With the younger writers he was particularly demanding, conceiving it his duty to the reputation of the ACER and to the future development of scientific educational research in Australia to insist on the best academic standards in research and writing. On Wyndham's manuscript on *Class Grouping* in 1931, done with the aid of an ACER grant, he was caustic. He complained to Lovell and

---

[35] K.S. Cunningham to H.T. Parker, 1 November 1933, ACER archives, series 32, vol.42.

Mackie of its looseness and prolixity, and Lovell, equally irritated with it, replied with a Freudian slip he would have appreciated had he realized it:

> As regards Wyndham's research, I am sure you are quite right. We cannot let these researches go forward to publication unless they are presented in a scholarly way. So many persons with degrees seem unable to right [sic] with any distinction of style.

And he would not agree to the publication of the research until Cunningham was satisfied in all respects with it.[36] Wyndham, who was to become the first head of the research branch in the New South Wales Department of Education, and subsequently Director-General, apparently profited by Cunningham's ruthlessness. When he submitted *Ability Grouping* in 1934, it was accepted without demur. Cunningham was equally severe on another young man from New South Wales who had a grant from the ACER. W.M. O'Neil, who was to make a considerable contribution to Australian education as Professor of Psychology and Deputy Vice-Chancellor of the University of Sydney, submitted the manuscript of his research on volitional traits in 1935. Cunningham thought it was too wordy and full of unwarranted assumptions and, when his opinion was confirmed by Fowler, decided not to publish it.[37] Later, in 1943, Cunningham was happy to commission an apparently much improved O'Neil as the author of *From School to Work*, one of the key wartime *The Future of Education* pamphlets where clarity of thought and expression was essential.

This was a part of Cunningham's work in which he had a free hand, and which he managed with great competence and determination. It enabled him also to give to the series a direction characteristic of his own thinking. The book by Fenner and Paull typified the approach. There were three principal elements that he sought and frequently found. The series should contain reports of soundly conducted educational research, they should be relevant to some aspect of existing educational practice, and the ideas expressed in them should be a little ahead of current thinking. The first publication was a mild example of all three. It was not to be expected, however, that each book would always meet these criteria. It was a pattern for the series rather than for each volume.

---

[36] H.T. Lovell to K.S. Cunningham, 21 December 1931, ACER archives, series 31, vol.39.

[37] K.S. Cunningham to H.L. Fowler, 16 May 1935, ACER archives, series 20, vol.58, filed under WA.

The series included the research monographs on standardization of arithmetic, reading, and intelligence tests, the curriculum surveys, and various observations and reflections on Australian, American, and British education. Most of the research-based publications, however, were contributions by individuals many of whom had received grants made to them by the ACER with the approval of the State Institutes. The series was the principal means of publication for research workers in the 1930s. Some were working for a university degree but most were not. The series provides a reasonable record of the kind of quality of the work being done during that period.

The handful of historical works were not in any way remarkable. The surveys were competently and interestingly done, the most notable being those done by Cunningham at the beginning of the 1930s on correspondence education, the two by H.S. Wyndham, *Class Grouping in the Primary School* in 1932, and *Ability Grouping* in 1934, and one by Cunningham's eventual successor, W.C. Radford, *The Educational Needs of a Rural Community* in 1939.[38]

Class Grouping in the Primary School was both an extensive survey by questionnaire of schools in Sydney, and an intensive program of testing and observation of 1000 primary school children during 1930 and 1931. The study found that none of the schools succeeded in organizing classes that could be regarded as effective working groups. Wyndham recommended the establishment of special schools for atypical children, the wider use of intelligence tests, and the reorganization of the classes in ordinary schools with mental age as a major determinant. Two years later in *Ability Grouping*, his doctoral thesis from Stanford, he looked carefully into class grouping procedures in the USA. This volume provided a useful historical background on American efforts to secure more satisfactory methods of class grouping, reviewed experimental evidence on the effects of the various arrangements currently in use, and discussed the appropriateness of ability grouping in schools in a democratic society.

---

[38] See Chapter 7 under, The New Director.

The reports of experimental research were uniformly of high quality. Five of the eight came from Perth and were done either by or under the supervision of H.L. Fowler who was an associate professor in psychology, a leading member of the State Institute, and one of Cunningham's closest correspondents. One of the others, E.G. Biaggini's *English in Australia: Taste and Training in a Modern Community*, published in 1933, was a distinguished piece of work. Biaggini asked students at the University of Adelaide and some senior secondary students to state which they preferred of various passages of written English on a number of topics, and to give detailed reasons for their preference. He was seeking for an assessment of their taste, and an indication of the possibility of improving it by deliberate teaching. His findings were devastating. He reported:

> We have found that, in general, the bad is preferred to the good; that the good is sometimes preferred for reasons which are bad; . . . and that what we call education often involves the inhibition if not the prohibition of thought.

Fortunately, he found also that the students 'profited from a little realistic teaching'.[39] He gave an indication of the nature of this teaching, and argued the social and cultural importance of improving the students' capacity to distinguish the worthwhile from the commonplace. F.R. Leavis, who wrote an introduction to the book, summed up impressively what he saw to be the significance of research:

> If schools and universities did what, given the will and the educated teachers, is perfectly possible—if they undertook seriously the function that a survey of contemporary civilization shows to be theirs— . . . then it would be possible to produce an educated community and a living culture.[40]

Among the empirical researches contributed to the series by individuals other than the ACER staff, there were a number of useful small studies, including several by Parker, and a substantial one by G.E. Phillips, *The Constancy of the Intelligence Quotient in Subnormal Children*, which appeared in 1940. Phillips's monograph was a report on the successive testing, for ten years from 1929 to 1938, of subnormal children at his residential school near Sydney to determine the extent to which IQ could be used as a measure to predict future school progress. Using his own Australian version of the Binet, he found that, for children with an IQ from 50 to 80, there was a tendency for the IQ to decline from year to year especially among the children with lower IQs. He found also that there could be substantial variation both upward and downward between tests, and that change in environment had an appreciable influence on the IQ scores. His conclusion was a salutary one, in a period in which IQ tests were beginning to become fashionable and the ACER's sales of them to burgeon. He wrote:

---

[39] E.G. Biaggini, *English in Australia: Taste and Training in a Modern Community*, (ACER Educational Research Series No.19), Melbourne: MUP, 1933, p.109.

[40] ibid., p.7.

> The educationist using the Binet test for purposes of prognosis must exercise extreme caution, and must consider not only the IQ itself but also the individual's chronological age, his emotionality and the type of environment, both home and scholastic, from which he comes.[41]

---

[41] G.E. Phillips, *The Constancy of the Intelligence Quotient in Sub-Normal Children*, (ACER Educational Research Series No.60), Melbourne: MUP, 1940.

4

EARLY COMPARATIVE EVALUATIONS OF AUSTRALIAN EDUCATION

Australian Visitors to the USA

One of the ACER's earliest publications was a book written jointly by Cunningham and Phillips containing their observations and reflections on their experience of education in the USA, and the implications which they drew from it for Australian education. It was the first of a number of such comparative studies either by Australians who had visited the USA or by Americans in Australia.[1] It reproduced several articles that Cunningham had written in 1928 after his return from his doctoral work, and was rounded off with a short chapter by Phillips on educational research in the USA based on his observations in 1929. America was seen by Cunningham to be steadily becoming more liberal, more vital, and more scientific in its educational programs. He was impressed by the spread of progressive methods of teaching, by the application of educational psychology to the classroom, and by the development of individual and standardized testing. Phillips, too, was attracted by what he saw in the USA, and in his short report recommended that the ACER should follow a number of American practices in undertaking and funding research, and in providing facilities and training for research workers.

---

[1] K.S. Cunningham and G.E. Phillips, *Some Aspects of Education in the United States of America*, (ACER Educational Research Series No.2), Melbourne: MUP, 1930.
G.S. Browne, *The Case for Curriculum Revision*, (ACER Educational Research Series No.8), Melbourne: MUP, 1932.
J.G. Cannon, *Comments on Education in USA and Victoria*, (ACER Educational Research Series No.18), Melbourne: MUP, 1932.
C.R. McRae, *An Australian Looks at American Schools*, (ACER Educational Research Series No.20), Melbourne: MUP, 1933.
R.D. Collman, A.J. Marshall, and R. Thomas, *Comparative Intelligence of English, American, and Australian Children*, (ACER Educational Research Series No.22),

A somewhat different and significant report on a visit to the USA was G.S. Browne's *The Case for Curriculum Revision* in 1932. Browne was one of the first two Australian educators to receive a Carnegie grant through which he was able to extend a visit he was making to the USA and make a special study of ways in which the primary school curriculum was being reformed in that country. The essence of the movement, he thought, was in 'the discarding of outworn and formal material, and the infusion into the curriculum of more reality and activity'.[2] Browne reported at length with extensive and pertinent illustrations on the psychological basis of the new curriculum, on the process of putting more reality into it, on testing procedures, and on varieties of activity programs. He related his findings to educational practice in Victoria and put forward a suggested plan of curriculum revision. His book was interesting, forceful, and entertaining, and had an appreciative introduction from the

---

Melbourne: MUP, 1934.
K.S. Cunningham, *Educational Observations and Reflections*, (ACER Educational Research Series No.24), Melbourne: MUP, 1934.
H.T. Parker, *The Background of American Education*, (ACER Educational Research Series No.34), Melbourne: MUP, 1935.
J.F. Cramer, *Australian Schools through American Eyes*, (ACER Educational Research Series No.42), Melbourne: MUP, 1936.
I.F. Kandel, *Impressions of Australian Education*, Melbourne: ACER, 1938.
——, *Types of Administration*, Melbourne: MUP, 1938.
F. Tate, Education in Australia, *Year Book of Education* (London), 1932, 570–99.
——, Australia: some present problems in primary, post-primary and secondary education, *Year Book of Education* (London), 1933, 532–48.
——, Australia: technical education, *Year Book of Education* (London), 1933, 549–54.
K.S. Cunningham, Events in education in English-speaking nations: Australia, *Year Book of Education* (London), 1934, 294–325.
——, Events and special features in education in the English-speaking nations, *Year Book of Education* (London), 1935, 260–77.
——, Survey of educational systems: Australia, *Year Book of Education* (London), 1935, 60–75.
——, A critical account of Australian education, *Year Book of Education* (London), 1936, 618–43.
For *Educational Yearbook* of the International Institute of Teachers College, Columbia University, New York, articles on Australia were written by P.R. Cole in 1924, 1930, 1932, 1935, 1936, 1938, 1939, 1940, and 1943, and by Cunningham in 1944.

[2] G.S. Browne, *The Case for Curriculum Revision*, (ACER Educational Research Series No.8), Melbourne: MUP, 1932, p.19

Victorian Director of Education. It was a seminal work which effectively introduced many Australian teachers to the edge of the world of progressive education, offered a plan for co-operative and continuous curriculum revision by the whole teaching profession, and affected educational thinking considerably during the course of the 1930s.

Cannon, a Victorian inspector of schools, whose visit to the USA was made in 1932 under a grant from the Carnegie Corporation, was less enthusiastic about American education. His report was forthright and witty. Where he saw things he admired, he faithfully reported them, but he tended to see the schools dominated by gross materialism and individual ambition. The American teacher's open-mindedness to new ideas, his sense of vision, and some of his progressive methods such as the project or activity program were features of American education that one should try to develop in Australian education; on the other hand he 'was not prepared to accept fully some teachings which American educationists have adopted as cardinal articles of faith'[3] in a system which 'allows so many inequalities of opportunity'.[4] Cunningham, a little perturbed by Cannon's views and their possible effects on relations with the Carnegie Corporation, sent the manuscript to New York seeking Keppel's views on it. Keppel sent a firm reply that it was not the Corporation's policy to comment in advance of publication on reports by Carnegie visitors.[5]

In 1932–33 Tate, Cunningham, and C.R. McRae went to the USA on Carnegie grants. One of the useful functions that the ACER performed for Australian education was to serve as an agent for the Carnegie Corporation travel grant program. The ACER had the task, discharged principally by Tate and Cunningham, of suggesting names and writing short evaluations on the people it proposed or on other applicants for the grants. The Corporation itself made the decision on the persons to be invited and the amount to be granted in each case. Up to 1940, when they were suspended because of the war, 70 such travel grants had been made to enable the recipients to visit usually the USA and Great Britain for periods of from three to six months. Grants were made to established leaders, promising younger men and women, and sometimes to individuals with some particularly interesting piece of research or topic to pursue overseas. The Corporation was interested in supporting a variety of fields of which educational administration, teaching, librarianship, museum studies, and agriculture were the most favoured. Several of the directors or potential directors of education received travel grants with the effect of desirably widening their horizons and making them noticeably well disposed towards the ACER. A reciprocal program operated on a smaller scale under which 14 educators from the USA and Great Britain visited Australia during the 1930s—some, such as Munn, Cramer, Kandel, and Spencer, to make significant reports on aspects of Australian educational and cultural development.[6]

---

[3] J.G. Cannon, *Comments on Education in USA and Victoria*, Melbourne: MUP, 1932, p.52.

[4] ibid., p.29

[5] John M. Russell to K.S. Cunningham, 24 October 1932, Carncor archives.

McRae's account of American education, written on his return in 1933, was done partly to redress the balance, and included a reply to Cannon's comments. 'Mr Cannon's first chapter', he wrote, 'includes many perfectly true individual statements. On the other hand, it creates in the mind of the reader a general impression which is decidedly misleading'[7]; and he proceeded to review Cannon's book indicating some of the author's virtues and many of his shortcomings as an observer of American education. McRae found American education uneven but full of interesting practices, especially in ways of individualizing methods of teaching, that could be usefully adapted to the Australian scene.

Cunningham, from the same trip, produced a report which he considered, quite rightly, as a contribution to comparative education. His was an attempt 'to concentrate on observing the growing points of educational practice'[8] and to make 'some attempt at a critical analysis of the circumstances which made them necessary or possible'.[9] He formulated the main questions that educational circles in the USA were concerned with, he compared Australian and American reactions in education to the current depression, and he examined American culture and scholarship. He was impressed with the high level of training, objectivity, and willingness to investigate, discuss, and criticize, that was to be found in the teaching profession; but he thought, in regard to his favourite area, that some of the younger educators, who while lacking a broad background of studies had become leading specialists in educational measurement, might suffer from a loss of perspective. Cunningham's visit to the USA in 1932 was at a time when progressive education was at its peak, and G.S. Counts had just been arguing the case for the school to become an agent for the reconstruction of society. In view of his subsequent interest in the NEF, Cunningham in his report gave the progressive movement rather tepid support, preferring more sedately to 'move along a steady line of advance'.[10] His book included also a brief account of his educational observations in England, and concluded with two chapters of reflection on the nature and state of educational research. This was the first occasion on which Cunningham had set out his views on research at any length. He regarded 'the coming into existence of a science of educational measurement'[11] as the most striking development in education in the present century. Valid and reliable measurement was the basis of a science of education which was to be built up by sound educational research. He suggested that there were five kinds of educational research in ascending order of significance:

---

[6] R. Munn and E.R. Pitt, *Australian Libraries*, Melbourne: ACER, 1935; J.F. Cramer, *Australian Schools through American Eyes*, Melbourne: MUP, 1936; I.L. Kandel, *Types of Administration*, Melbourne: MUP, 1938; F.H. Spencer, *Technical Education in Australia*, New York: Carnegie Corporation, 1939.

[7] C.R. McRae, *An Australian Looks at American Schools*, Melbourne: MUP, 1933, p.58.

(i) investigation that merely collects facts such as the number of hours spent by children on out-of-school activities;
(ii) devising and standardizing tests and measuring devices, i.e. preparing reliable and valid tools of research;

---

[8] K.S. Cunningham, *Educational Observations and Reflections*, (ACER Educational Research Series No.24), Melbourne: MUP, 1934, p.4.

[9] ibid., p.5.

[10] ibid., p.37.

[11] ibid., p.69.

(iii) experimental investigation of a specific educational problem, e.g. the relative advantages of two different methods of teaching a particular school subject;

(iv) investigation which seeks 'to add to our knowledge of human beings, the stages through which they develop, and the factors which may affect development';

(v) analysis of the nature and interrelations of mental processes and abilities, such as is exemplified in the work of Spearman, Thomson, and Kelley.[12]

Levels (iv) and (v) were the more fundamental types of research. Though he did not point it out, his description of his contacts with various institutions showed that research bureaux in the USA and the British Empire concentrated their efforts on types (i) to (iii); the higher-level work was usually to be found in universities. An exception would have been the Jean Jacques Rousseau Institute in Geneva, not visited by Cunningham, in which at that time, Claparède and Piaget were nurturing fundamental research on child development that was beginning to make an impact on psychology and education. But there was a connection between the Institute and the University of Geneva which gave it academic strength and inclined it towards more fundamental research. The ACER work was done at the first three levels, moving occasionally into the fundamental work of levels (iv) and (v). It did not, however, try to develop anything more than a loose and short-term connection with any university and never sought to develop a reputation as an academic institution.

Cunningham's report was temperate and reserved. It did not bubble with enthusiasm like Browne's *The Case for Curriculum Revision*. Both, in the course of their professional lives, promoted American educational ideas and educational reform; but, in keeping with the difference in their personalities, the one was a carefully balanced advocate, the other vigorous and ebullient.[13] Cunningham's approach pleased McRae, who thought his report the best so far produced, and also delighted Keppel. As he thought the report would be very good for many American educators to read, he proceeded to distribute copies among his friends and colleagues. One of them, Charles A. Beard, the distinguished social historian, wrote:

---

[12] ibid., p.73.

[13] Two other statements were also published at that time. Collmann, a lecturer at Melbourne Teachers College, contributed in 1934 a short statement on his research which showed that, on the Otis Self-Administering Intelligence Test, Intermediate Examination, Form B, mean scores for 10- and 11-year-old children in Victoria were almost identical with those of children in the USA. Parker in 1935, in a brief report after a visit to the USA on a Carnegie grant, supported Cunningham's point of view.

> It goes to the heart of many fundamental matters . . . the tone and substance of the book ought to be made a part of our educational thought. It was a good job to bring that man to the United States.[14]

American Visitors to Australia

In 1936 the first of a number of what proved to be rather provocative reports on Australian education by overseas visitors was written by J.F. Cramer, a school superintendent from Oregon. None of these reports which were commissioned by the ACER in the late 1930s, and subsequently again in the 1950s, was deliberately provocative. They were written by experienced and perceptive educators whose frank, reasoned, and temperately expressed observations penetrated the thin skins of Australian educational administrators quick to resent criticism of their systems.

Cramer, who had already studied Australian education for some years, spent three months in 1935 in the eastern States of Australia on a Carnegie grant visiting urban and rural schools, teachers colleges, and universities, and talking with administrators, teachers, and academics.[15] He disclaimed any intention to criticize, and expressed a wish merely to show in his report how Australian school practices appeared to one brought up in an American tradition.

'The first feature to impress one', he wrote, 'is the uniformity, so lacking in most American States.'[16] Uniformity resulted from the centralization of educational administration that was an Australian characteristic. The general excellence of rural education and the extensive provision of medical and dental services were admired by

---

[14] F.P. Keppel to K.S. Cunningham, 12 December 1934, ACER archives, series 30, vol.34.

[15] Cramer revisited Australia in 1951 as a Fulbright lecturer at the University of Melbourne.

[16] J.F. Cramer, *Australian Schools through American Eyes*, (ACER Educational Research Series No.42), Melbourne: MUP, 1936, p.10.

Cramer and seen as some of the beneficial consequences of centralization. But there were many aspects of Australian education that did not meet with his approval. School libraries were poor, the schools were not properly cleaned, promotion for teachers was slow, young men seldom managed to get into positions of administrative responsibility, the practice of inspection rigidified an already conservative system, and selection for and differentiation in secondary education were severe handicaps to the educational development of the great majority of Australian children. In short, Cramer saw a good deal of evidence in Australian education to justify a remark that Parker had made in his book: 'America is a new world; Australia is an outpost of the old'.[17] Australian education, Cramer thought, placed its emphasis on scholarship, American on citizenship. The conservatism of Australian education—exemplified in the traditional curriculum, the administrative policies of state school administrators, and the great prestige of non-state Great Public Schools—was, in his view, a marked contrast to the flexibility and democratic approach of American education. Cramer's report was salutary but unpopular. It shrewdly homed in on the vulnerable points in Australian education and goaded some of the leading administrators into exasperated response.

In the previous year 1935, Cunningham had written an article for the *Year Book of Education* and had provoked a 'rather nasty letter' from B.J. McKenna, the Queensland Director of Education, protesting that Cunningham had not given sufficient attention to developments in Queensland. He threatened to see the editor of the *Year Book* on his forthcoming trip to England and advise him that the proper persons to write such articles were the directors of education. In 1936 they brushed again. McKenna complained in the Brisbane *Courier Mail* that the Carnegie Corporation 'which is run in Australia from Melbourne' had omitted to select a delegate from Queensland for a conference on native education in Honolulu. Cunningham replied with a letter to the *Courier Mail* pointing out the contributions that both the Corporation and the ACER were making to Queensland education and culture, that neither had been concerned in the selection of delegates to the Honolulu conference, and that McKenna by his present refusal to co-operate in the NEF Conference scheduled for the next year was denying Queensland educators an opportunity to take part in 'an event of unprecedented importance in the history of Australian education'.[18] McKenna, it could be said, was hardly in the mood to take kindly to much further criticism, and some of his fellow directors were similarly edgy. Moreover, in 1936, he was the current chairman of the Conference of Directors of Education.

---

[17] H.J. Parker, *The Background of American Education as an Australian Sees It*, (ACER Educational Research Series No.34), Melbourne: MUP, 1935, p.18; Cramer, op. cit., p.53.

For the 1936 *Year Book*, Cunningham wrote *A Critical Account of Australian Education*, which was published subsequently as a pamphlet by the ACER. In it he pointed out the imitative nature and intellectual timidity of Australian culture, and he described the general theory of education held in Australia 'as predominantly English with a colouring of ideas from America'.[19] He commented on the lack of national policy or even any comprehensive state plan in education. He wrote disapprovingly of the fetish of academic attainment in formal school subjects, the neglect of aesthetic appreciation, the lack of attention paid to a study of the Pacific area, the high percentage of untrained and poorly trained teachers, the absence of an effective public opinion on or interest in educational questions, the rigidity of the States' hierarchical administrative systems, and the impossibility of combining the functions of stimulation and assessment in the one person of an inspector. Secondary education was the area most in need of attention. The subordination of the whole secondary school program to the interests of the minority destined for tertiary education was inappropriate, and the transition from school to work in the current period of depression needed rethinking.

The essays by Cunningham and Cramer were a jolting criticism of Australian educational thought and practice. Keppel was surprised and greatly pleased by Cunningham's forthrightness. He had previously regarded him as an efficient, loyal, and somewhat colourless subordinate to Tate who seemed to make most of the day-to-day decisions. Initially Keppel's estimate was probably true. Cunningham had a relaxed and good working relationship with his staff and helped them in making various decisions involving the organization of their professional work. But, in the general conduct of the ACER in its early years, it was Tate who called the tune. The successive secretaries, Miss Campbell and Miss Knee, thought highly of Tate's flair and intellectual drive, but the seconded research workers regarded him as somewhat dictatorial and, with his lack of research experience, rather out of place in a research organization.[20] As Cunningham became more established, he began in the late 1930s to emerge from the chairman's shadow. Keppel rightly detected that Cunningham's *Critical Account of Australian Education* was a sign of his growing confidence and stature. 'How finely Cunningham is rounding out', he wrote to Tate, 'and what full advantage in his own development he is taking of the opportunities which his present job gives him.'[21] Cunningham did not finally come into his own until after Tate's death in 1939. Significantly at that point the Council changed his title from that of Executive Officer to Director.

---

[18] K.S. Cunningham to F.P. Keppel, 13 August 1935; and 23 June 1936 with enclosure, Carncor archives.

[19] K.S. Cunningham, A critical account of Australian education, *Year Book of Education* (London), 1936, p.643.

110

The criticisms of Australian education offered by Cramer and Cunningham were neither new nor unique. Similar views had been expressed by Professor Francis Anderson of the University of Sydney in an influential address in 1901 and, with suitable adjustments for the occasion, they had been mildly voiced from time to time subsequently. They were points for discussion by aspiring teachers in diploma of education courses at the universities in the 1930s. But they had not appeared before with solid argument teased out at length and supported by overseas comparisons and a body of educational literature from overseas which questioned educational practices and advocated extensive reform.

Australia's educational administrators were defensive about their reputations and their systems. Harassed, in the prevailing economic depression, by lack of money and reductions in staff, they felt capable of conducting nothing more than a holding operation alleviated by some minor reforms. Their deep conservatism did not rise to the social and educational challenge of the depression as many influential educators did in the more flexible educational climate of the USA. They were readily irritated by suggestions that they should do better. The chief target for their attack was the foreign critic.

---

[20] These views are based on interviews with Miss M.A. Campbell (Mrs H. Boyd-Penfold), Miss W.J. Knee (Mrs C.M Toop), and W. Wood.

[21] F.P. Keppel to F. Tate, 22 June 1936, Carncor archives.

Cramer, according to the Queensland Director of Education, McKenna, was only 'the superintendent of a few schools in a corner of the State of Oregon, and cannot be regarded as an authority'; he did not make a thorough study, and did not consult adequately with high administrative officers. Accordingly, at the Conference of Directors of Education of all the States held in Brisbane in 1936, the following resolution was carried and conveyed to the ACER:

> This Directors' Conference has given consideration to the Australian Council for Educational Research report, *Australian Schools through American Eyes*, by J.F. Cramer, and is of the opinion that the strictures therein contained on Australian teachers and upon their relations with inspectors, and on the methods of administration, are ill-founded and misleading, and likely to create a false impression in the minds of readers unacquainted with the true position.
>
> It is strongly felt that the publication of such reports, manifestly based upon the slenderest and most unreliable data, is liable to give a definitely erroneous picture of Australian education, and should therefore be discouraged.[22]

Cunningham with the support of his executive wrote to each of the directors pointing out that, if the ACER was to fulfil one of its most valuable functions, it should have no fear or hesitation in publishing comments on Australian education made in good faith by competent persons. He stated further that Cramer had taken great care in gathering his data, and that press reviews had been remarkably favourable to the book, teachers had given it unqualified approval, and two directors had expressed to him their appreciation of it.[23] McKenna, however, was unmoved. He challenged the statement that teachers had given the report their unqualified approval. 'A few of the poorer type have probably done so', he wrote, 'but the majority of earnest teachers look upon the inspector as a friend.'[24] One director, however, wrote to say that too great significance should not be attached to the resolution. It was prompted rather hurriedly, one wrote, after it was found that the teachers unions in two States 'had given unfair prominence in the columns of their journals to Mr Cramer's criticisms of Australian administrative methods'. Two other directors appeared to find some useful ideas in the book. At that point the controversy lapsed, one of the directors pointing out that it did not fundamentally reflect their view of the work of the ACER. That view was expressed in another resolution passed at the same meeting.

---

[22] B. McKenna to K.S. Cunningham, 23 October 1936; and 8 December 1936, ACER archives, series 9, vol.52.

[23] K.S. Cunningham to B. McKenna, 12 November 1936, ACER archives, series 9, vol.52.

In 1935, Cunningham wrote to all the directors to let them know that funds from the Carnegie Corporation for the support of the ACER would not be available beyond 1939, and that if the work was to continue it would have to be supported by the state and federal governments. In September 1936, a month before the directors conference, he sent a detailed statement of the ACER's activities as background material for the directors' discussion of the matter. McKenna, as might be expected, confessed himself 'definitely hostile to the suggestion'.[25] In the event, the conference unanimously passed a very favourable resolution:

> This Conference, realizing that the annual grants to the Australian Council for Educational Research from the Carnegie Corporation will cease in a few years' time, affirms the desirability of steps being taken to ensure the continuity of this work in educational research. To this end it recommends that each director approach his own minister with a view to having the question raised at the next Premiers Conference of the provision of Commonwealth and state subsidies to enable this work to continue unimpaired.
>
> This Conference also suggests that the value of the work of the Australian Council for Educational Research would be considerably enhanced if closer co-operation were maintained with the state education departments.[26]

---

[24] B. McKenna to K.S. Cunningham, 8 December 1936, ACER archives, series 9, vol. 52.

[25] B. McKenna to K.S. Cunningham, 1 June 1935, ACER archives, series 9, vol. 52.

[26] J. McRae to K.S. Cunningham, 27 October 1936 and enclosure, ACER archives, series 2, vol. 114.

Two years later in 1938, further solid criticisms were forthcoming. The observer on that occasion was I.L. Kandel, Professor of Education at Teachers College, Columbia University, and a distinguished scholar in comparative education. Cramer had been a more or less unknown American school superintendent, Kandel was a man of international stature. He wrote, for the ACER and NZCER, a small thoughtful volume, *Types of Administration*, in which he put the administration of Australian and New Zealand education, which he regarded as almost identical in pattern, into a world perspective. His analysis was supported by two radio talks published also in 1938 by the ACER as *Impressions of Australian Education*.

Kandel characterized Australian education as education for efficiency. He saw some genuine benefits in its high degree of centralization through the provision of equality of educational opportunities and the fact that all pupils had access to teachers of uniform training. He acknowledged the progress recently made in new experimentation in schools, in the raising of the level of the professional preparation of teachers, and in the stimulation of research by the establishment of the ACER and research officers in several state education departments. He drew a distinction, however, between the provision of education and the spirit which characterized it. Australian education, though widespread, efficient, and highly organized, was radically flawed in the spirit of its operation. Centralized administration had become bureaucratic, teachers devotees of conformity and a 'middling standard', inspectors overworked servants of a machine, and community co-operation negligible. The system was 'dominated by the aim of securing efficiency in a somewhat narrowly conceived round of educational prescriptions and requirements'.[27] Education, both secondary and primary, was 'standardized, unimaginative, and static'.[28] The remedy lay in remodelling the inspectorate into a sort of regional advisory service, in reforming the school's curricula and examination practices, in transferring responsibility for the training of all teachers to the universities, in underpinning the whole system with an informed and active public opinion, and, above all, in developing throughout the process of educational administration a spirit of partnership by encouraging consultation and discussion between all the various groups concerned with education.

---

[27] I.L. Kandel, *Types of Administration*, Melbourne: MUP, 1938, p.82.

[28] ibid., p.67.

Kandel's book was clearly the product of a first-rate scholar. It was judicious and convincing, and there were few to cavil at it. Perhaps the leaven of the NEF Conference, which had intervened in 1937 between Cramer's and Kandel's books, and the declining impact of the depression had had their effect. The later book was well received and the Acting-Director of the New South Wales Department of Public Instruction wrote: 'Dr Kandel has done splendidly and can be read with profit by all of us'.[29] In 1961, when it was reprinted after 23 years, its analysis was apparently still pertinent.

New Education Fellowship Conference, 1937

Since its establishment in 1921, the New Education Fellowship, a European-based association of progressive educators, had held international conferences every two or three years in various European cities and had attracted members from many countries throughout the world. In 1934 its conference for the first time moved out of Europe to South Africa. Cunningham was invited to attend, was deeply impressed, and resolved to try to organize an international conference in Australia in 1937. He was successful in his bid, and the ACER became the host for one of the most exciting events in Australia's educational history.

In South Africa, Cunningham studied carefully the way the conference was organized, and formed a friendship with E.G. Malherbe the organizer and Director of the South African National Bureau of Education. Preparations for the Australian conference started in 1935 with the approval by the ACER, at its annual meeting, of a proposal from Cunningham. A central organizing committee chaired by Tate with Cunningham as secretary was set up and met for the first time on 4 November 1935. In December of the previous year, the recently established NZCER heard of Cunningham's intentions and offered to join in. The offer was accepted and the two bodies collaborated in bringing overseas visitors in 1937 to suc-

---

[29] B.C. Harkness to K.S. Cunningham, 21 December 1938, ACER archives, series 9, vol. 53.

H

cessive conferences in July in New Zealand and in Australia in August–September.

The organizing committees had approximately 18 months in which to prepare, but Cunningham would have found himself involved for almost four years from the time of his preliminary enquiries in 1934, through a period of intense and often full-time organization and travel from mid-1936 to September 1937, to the final collation, editing, and publication of the speakers' manuscripts towards the end of 1938.

The general organizing committee was the ACER executive together with R.E. Priestley, the Vice-Chancellor of the University of Melbourne, and J. McRae recently Director of the Victorian Education Department. Each State had its own committee with a wide representation of educational and community bodies. The State Institutes were heavily involved, and most of them provided secretaries for the state committees.[30] The vice-chancellors of all the Australian universities, and the directors of education in each State, except McKenna in Queensland, were also involved in the planning. 'The Conference', Cunningham wrote, 'was indeed a huge co-operative effort carried through with the greatest of good-will.'[31]

There was much to be done. Adequate financial support had to be arranged, extensive publicity had to be set in motion, organizational details of conference sites and the daily conduct of the conference had to be settled, accommodation and hospitality had to be provided for speakers and visitors, and most importantly, speakers had to be selected, invited, transported to Australia, and programmed throughout their six-weeks visit.

The Carnegie Corporation provided a subsidy. Keppel had visited Australia in 1935 for two months, and during that period had discussed the proposed conference with a great deal of interest. Cunningham hoped that half the expenses would be met by those attending the conference, and the balance by grants from federal and state governments and the Carnegie Corporation. The Corporation made a grant of US$12 000 (A£3044), to be used principally to pay fares for speakers travelling from overseas to Australia[32], and also met the full expenses of I.L. Kandel and A. Lismer who were initially on overseas visits for a different purpose. In November 1935, Cunningham had an interview with the Prime Minister, J.A. Lyons, and was hopeful of a sizable grant. The States too were willing. Such was not entirely the case, however, in the early stages of planning. Under McKenna's influence, Queensland did not join in. His memo to the Premier recommending the refusal of financial assistance to the conference was a virulent example of self-satisfied ignorance compounded with personal and interstate jealousy.

---

[30] The state committee secretaries were E.A. Payne (Queensland), H.S. Wyndham (NSW), K. Binns (ACT), L.G. Whiteoak (Victoria), H.T. Parker (Tasmania), H.M. Lushey (South Australia), H.L. Fowler (Western Australia).

[31] K.S. Cunningham (Ed.), *Education for Complete Living*, Melbourne: ACER, 1938, p.xxvii.

> In August of this year, I attended a conference held under the auspices of the New Education Fellowship at the University of St Andrews, in Scotland. The conference lasted one week.
>
> The organization known as the New Education Fellowship is not connected with the Board of Education in Britain, or with any Local Education Authority. It functions independently, and has the reputation of fostering advanced and irregular ideas in educational matters; and, although within its ranks are many prominent educationalists, its actions and objectives are not taken at all seriously in some responsible quarters. The members are regarded as being privileged, as one high administrator put it, to 'say what they like'.
>
> The conference at St Andrews was financed by Fellowship organization. A fee of £1/1/- was charged for attendance. Lectures by experts were given on various subjects, but there were few discussions after, and certainly no discussions that were worthwhile.
>
> A few prominent men with whom I discussed matters agreed that some of the opinions and ideas were too extreme to be seriously considered. An exhibition of work from Scottish schools was staged in one of the public buildings of the city, and was perhaps the best feature of the conference. The gathering also afforded the opportunity of meeting educationalists from different parts of Britain and America. The conference, however, was small compared with that staged by the National Union of Teachers the previous week in Oxford.
>
> Mr Tate, of Victoria, is the moving spirit in the suggested conference. The sittings are to be in Sydney and Melbourne. A few stray crumbs are to be thrown to the capital cities in the other States. Experience has shown that in such matters as this, the glorification of Victoria is kept well in the foreground, and there is no reason for doubting that,

---

[32] F.P. Keppel to K.S. Cunningham, 18 November 1936, Carncor archives.

> if this conference takes place, the only people to reap any worthwhile benefit will be, firstly, the teachers in Victoria who elect to attend, and, secondly, the teachers in and around Sydney who attend the sessions staged there. The benefit that will accrue to teachers in the other States will be negligible.
>
> I can see no justification for granting either federal or state financial assistance to the movement. Conferences of teachers and others engaged in educational work have been held for many years in the capital cities of the various States, and no monetary assistance has been asked for or received. The expenses of the invited lecturers (estimated at £8000) will be paid, Mr Tate will be voted by them a really good fellow, and he or Dr Cunningham will probably be invited to another Fellowship conference in America or some other distant place.
>
> I have no hesitation in recommending that financial assistance be refused. A few shillings will buy copies of the lectures given at St Andrews, and, as probably some of the same lecturers will be invited to Australia, the addresses will be to some extent at least a replica of what was heard at St Andrews, and much of it was commonplace.[33]

McKenna retired at the end of 1936. L.D. Edwards, who in 1935 had been abroad on a grant from the Carnegie Corporation, became the new Director of Education in 1937, and Queensland joined the other States in support of the conference. The federal and state governments eventually contributed A£2175 between them. The federal and state governments also provided free rail travel for the delegates, and, with the mayors of the capital cities, helped to provide entertainment. In the event, the conference was such a success that there was a handsome surplus which was used to set up a publication fund, and also to make a contribution of A£1000 towards the running expenses of the NEF headquarters in London.

Publicity for the conference turned out to be simple and inexpensive. Education, which, except when associated with religious controversy, had seldom in Australian history been a topic of public interest and debate, became overnight an immensely popular matter for discussion. For a very small expenditure of money, pamphlets were produced advertising the forthcoming conference and notices were inserted in teachers gazettes and local newspapers. Once the conference started and the quality and liveliness of the speakers became apparent, newspaper and radio coverage was enormous. Cunningham was surprised by its amount. He wrote:

---

[33] Memo by B. McKenna for the Premier of Queensland 30 December 1935, Queensland Department of Education files.

> The files of cuttings are so large that one would need to have unlimited leisure to settle down to reading them fully. There is not the slightest doubt that the Conference has succeeded in one of its chief objectives—that, namely, of stirring up public interest in educational problems. I personally had little doubt that this aim would be achieved, but I did not anticipate that education would become so much the topic of the day.[34]

The conference began in Brisbane on 4 August 1937, moved around the continent to each capital city in succession—Sydney, Canberra, Melbourne, Hobart, Adelaide—and, after seven weeks, concluded its seventh session on 18 September in Perth. Nearly 300 addresses were given by 21 speakers. In each city, the universities provided the site and the buildings for lectures and small group discussions, and university students and teachers acted as ushers, door attendants, and guides. Enthusiastic individuals provided accommodation in their homes for most of the visitors, took them on excursions, and helped to provide transport and entertainment. The general organization ran smoothly and amicably. The only major crisis was the outbreak of an epidemic of poliomyelitis in Victoria at the time of the conference. Despite this difficulty, the Victorian sessions had the largest of all Australian attendances, and were memorable for the large number of participants who paraded the grounds of the University of Melbourne and sat through the lectures in protective white gauze masks. The total number of persons enrolling for the conference was 8718 of whom 1343 attended in Brisbane, 1847 in Sydney, 2302 in Melbourne, 677 in Hobart, 1175 in Adelaide, and 1374 in Perth. In addition, another 10 469 tickets were sold for single lectures.

The selection of speakers was the task of the general committee. In practice it was left in Cunningham's hands. He had advice from NEF headquarters, from the Carnegie Corporation, and from his Australian colleagues. His initial list of 25 contained a few NEF stalwarts but was not a characteristically progressive group. It included General Smuts, Lord Eustace Percy, Sir Percy Nunn, R.H.

---

[34] K.S. Cunningham to F.P. Keppel, 28 September 1937, Carncor archives.

Tawney, A.D. Lindsay, Cyril Burt, Godfrey Thomson, John Dewey, and Hu Shih, none of whom was able to come. The final list of 21 acceptances, looked much more like an NEF team with perhaps only four or five who accorded strangely with the company.

The leader of the group was Beatrice Ensor, the president and one of the founders of the NEF. She was a vigorous and persuasive lecturer devoted to the cause of progressive education. She was ably supported by Laurin Zilliacus, a sincere and well-balanced individual who was a school principal from Finland and current chairman of the NEF, and by the venerable looking and gentle Pierre Bovet, Director of the J.J. Rousseau Institute of Geneva, an original member of the NEF who had coined the phrase 'activity school' to characterize one of the central ideas of progressivism. Representative of one of Europe's great contributions to adult and community education was Anders Vedel, the headmaster of a folk high school in Denmark.

From the USA came Harold Rugg, E. De S. Brunner, and I.L. Kandel all from Teachers College, Columbia University, and F.W. Hart from the University of California. Rugg and Kandel were complete contrasts. Rugg a thorough, practical, mid-Western American was a leader of the progressive movement whose contributions to curriculum reform and to the rethinking of the American democratic tradition were radical, exciting, and presented with conviction. Kandel, born in Rumania and educated in England and Germany, was a scholar of considerable reputation, who still retained a conservative leaning towards European traditions even after 30 years in America; he was somewhat out of place in an NEF gathering. Brunner was a well-organized young man with an expert knowledge of rural education. Hart, an ebullient professor of educational administration, proved to be an uninhibited and frankly critical lecturer, attractive particularly 'to the young people with whom he was extremely popular'.[35] From Canada there was one representative, Arthur Lismer, a leading artist, innovative art teacher, and fascinating lecturer. He produced two cartoons on the final night of the proceedings in Melbourne, during which Kandel delivered an address, The Strife of Tongues, pouring scorn on child-centred progressive education. One called 'The Tongue of Strife' showed Kandel in academic dress putting an extinguisher over a lighted candle labelled NEF; the other was a picture of Kandel himself about to disappear under a large candle extinguisher with the caption 'Out Brief Kandel'. The cartoons drolly expressed Lismer's view of Kandel's incongruity and of the end of the Melbourne session of the conference.

---

[35] K.S. Cunningham to F.P. Keppel, 30 October 1937, Carncor archives. This was a lengthy, informal, and fascinating letter from Cunningham's holiday home at Mt Martha to Keppel a month after the end of the conference, in which he commented on each lecturer's performance and personality, and discussed the difficulties and successes of the tour.

The United Kingdom supplied, besides Beatrice Ensor, nine other speakers. William Boyd, a Scot from Glasgow University, was a staunch supporter of the NEF and an educational historian who subsequently wrote a short history of the New Education. He was overly critical of Australian education and, in South Australia, became embarrassingly embroiled with the local director of education. Three of the English contingent were liberally minded administrators: E. Salter Davies and Percy Meadon were directors of education for local authorities, and G.H. Hankin was one of His Majesty's inspectors of schools interested in the teaching of history. From the Institute of Education, University of London, came H.R. Hamley, an Australian and a leading professor of educational research in England, and his colleague Susan Isaacs who had run a progressive school in Cambridge and was noted for her perceptive research in child development. Frank Debenham, another Australian, joined the group from a chair in geography at Cambridge. F.C. Happold, headmaster of Bishop Wordsworth School at Salisbury, spoke attractively of the experimental work in history at his school. Cunningham found him rather full of his own importance, and he irritated Tate so much by his frequently expressed prejudice in favour of everything English that, when on one occasion he said 'I hope you don't think I am unduly dogmatic', Tate retorted, 'I don't object so much to your being dogmatic, but I do object to your being pig-matic'.[36] Cyril Norwood formerly headmaster of Harrow and author of *The English Tradition of Education* was a considerable drawcard for his authoritative manner of putting what was regarded as a typically English viewpoint on a liberal education. He, like Kandel with whom he had much in common, did not share the progressive convictions of educators like Beatrice Ensor, Boyd, Rugg, Bovet, Zilliacus, Lismer, and Susan Isaacs.

---

[36] F. Tate to F.P. Keppel, 20 September 1937, Carncor archives.

The Director of the National Bureau of Education in South Africa, E.G. Mallerbe, came to consult with Cunningham on educational research and to give a number of well-received addresses on research and the education of atypical children.

Finally there were two somewhat incongruous members who were particularly disquieting to Rugg and Zilliacus. Paul Dengler, an educational administrator from Vienna, was suspected by some of his fellow speakers of being a Nazi sympathizer, especially when in his talks he argued for more tolerance and understanding of Nazi and Fascist policies, and was enthusiastic about the work of the German youth movement. He was, nevertheless, a person of great charm and eloquence and proved to be easily the most popular speaker. A newspaper review of the conference referred to 'the smile and ready gesture of Dr Dengler, the magician'.[37] Also in a difficult position was a Japanese speaker, Y. Tsurumi, who was not an educator but a journalist and member of parliament. Some of the party refused to travel or associate with him and, although his audiences received him well, he was clearly not at home in the progressive education movement.[38]

Tate and Cunningham accompanied the large party of speakers, many of whom had also brought wives and relatives, throughout the whole trip from Brisbane to Perth. It was a tiring, exacting, but rewarding journey made principally by train sometimes without benefit of sleepers.

---

[37] *The Herald* (Melbourne), 1 September 1937, p.10.

[38] To celebrate the presence of such a distinguished band of scholars, the six Australian universities decided to award honorary degrees to them, dividing them approximately three to each institution. It was a serio-comic performance. Several of the universities found that they had the power to award only honorary *ad eundum* degrees, and in consequence could award doctorates only to those who already possessed them. There was some upset to the dignity of a number of the speakers and some heart burnings when, for example, Tsurumi scored an LLD from Melbourne and Norwood, who had an honorary DLitt from Oxford, only managed an MA from Sydney. Mrs Ensor who had no previous degree received a doctorate from the University of Western Australia which had no inhibitions, and Lismer who likewise had no degree, not being on the Western Australian list, received nothing at all from any university. Several, rather quaintly, received honorary PhDs, a degree which, at that time, did not exist in any Australian university. Zilliacus was offered an honorary BSc from the University of Adelaide and, before he refused it, was hastily transferred to the Melbourne list and an honorary LLD.

The conference was concerned, basically, with relating education to the needs and conditions of modern life. Several of the speakers looked at the international situation as a race between education and catastrophe in which democracy, which, in Zilliacus's view, meant 'building all human institutions around an *educational* aim and measuring them with an educational measure', was the hope of mankind.[39] Rugg struck the keynote of the conference when he said:

> We stand at the crossroads of a new epoch . . . the first on the time-line of history in which man can bring forth a civilization of abundance, of tolerance, and of beauty . . . There is no way to short-circuit the solution to the problem of building this new epoch. There is only the way of education, and it is slow, not sudden.[40]

The kind of education that was called for was suggested by other progressives such as Happold, Boyd, Lismer, and Beatrice Ensor. It was to be an education for citizenship that would produce persons with a highly developed sense of democratic, social, and political responsibility. It would involve a thoroughly reconstructed curriculum with a more realistic relationship to life. It would place more emphasis on the social studies, on the creative arts as the authentic expression of experience, on continuity of education from nursery school through to old age, on methods of teaching that stimulate intelligent inquiry, on greater pupil activity and first-hand experience, and on enjoyment and deep-rooted affection in the teaching-learning process.

In each city the speakers dealt with a range of topics and related them to the general theme. In examining the relevance of education to the modern world, they offered their views on the international situation, on the possibility of reconstructing society through education, and on the ways of dealing with social topics and controversial issues in school. Some proposed new approaches in rural education and described overseas developments in adult education and library services for both rural and urban populations. Educational administration and examination practices were explored, and the Australian systems were put under careful scrutiny. Much time and attention were given to their ideas and experience with school curricula and the intellectual and emotional growth of young people from kindergarten through primary, secondary, and university levels.

---

[39] K.S. Cunningham (Ed.), *Education for Complete Living*, Melbourne: ACER, 1938, pp.8–9.

[40] ibid., p.57.

On Australian education, most of the speakers were sharp critics. Centralization, inspection, public examination, teacher training, promotion of teachers by seniority, uniform and traditional syllabuses, and lack of public involvement were subjects of considerable comment. In a final statement, Hart summed up his own views, and undoubtedly those of several others, on what he called the major barriers to educational progress in Australia. They were four: the absence of a feeling of ownership or control of the schools by the people; the use of seniority which in his opinion was almost equivalent to senility as a basis for promotion; the prevailing view that education should be valued chiefly for the job and income that it might lead to; and the devaluing of state schools and promotion of social divisions by the widespread attitude that 'anybody who is anybody sends his children to a private school—an issue of profound importance to a country that claims to be a democracy'.[41]

The 1937 NEF Conference was the greatest event in the ACER's history, and a great personal achievement for Cunningham who conceived and organized it. Lovell had written six months before it opened: 'It will certainly add to the prestige of our own Council both here and abroad'.[42] He could not have anticipated the huge success that it proved to be.

In the mid-1930s Australian educators by and large appeared to be satisfied with the existing state of education throughout the nation. There was little questioning of its mode of organization, its processes, or its outcomes. The ACER's publications and the criticisms of persons such as Browne, Cameron, and Mackie had begun to make a small stir, and the onset of the depression had caused some reflection on the adequacy of the social system and education's part in it. There was, however, no fundamental and widespread uncertainty among teachers and administrators about the appropriateness of their work but, on the contrary, considerable impatience under criticism. Moreover there was little knowledge, except among an interested minority, of the other ways that overseas countries organized their educational efforts, and of the great movements of reform that had been seriously canvassed in the teaching profession overseas for the past 30 years and brought into sharper focus in the 1930s. The conference dramatically changed that situation.

---

[41] ibid., p.654.

[42] H.T. Lovell to K.S. Cunningham, 10 April 1937, ACER archives, series 37, vol.93.

For the first time in the history of the country, Australian teachers were exposed to the compelling eloquence and penetrating criticism of a large group of most intelligent and creative educators. Their impact on their audiences was extraordinary. Cunningham recorded that there was an 'unprecedented interest' among teachers and the community.[43] It was more than a mere interest. For many it was an exhilarating emotional experience and an intellectual inspiration. 'If the vows they took in the lecture theatres can be relied on', wrote one reporter, 'hundreds of those teachers will soon be making small experiments, and thousands of children should feel the benefit.'[44]

The conference, however, was not without its critics. McKenna in 1936 had let his contempt for NEF critics be known to his minister and in somewhat similar vein to Cunningham.[45] After the conference, Adey, the Director of Education for South Australia, enthusiastic but sensitive of criticism, wrote:

> I feel that some of the remarks that were made were in the air, and some of the criticisms offered were without actual first-hand knowledge of conditions in Australia. Notwithstanding this, however, it was a glorious experience.[46]

Other administrators, though putting on a brave front, according to a secondary school headmaster, in the face of sweeping criticisms, had raised their defences and would, at least temporarily, be difficult to move.[47] Some Catholic educators were dubious of the value of the ideas expressed in the conference. The influential Archbishop Duhig of Brisbane, for example, let it be known that he thought that the old ways of educating had produced the great men of the past, and in his view were better than costly new experiments with the lives of young children[48]; and Father Keane, a leading Jesuit in Melbourne, while admiring the freshness and devotion of the new educational apostles, thought that in many cases their basic philosophy was flawed by too much attention to behaviourism and the naturalism of Rousseau. Others who had attended the conference deplored the enthusiasm of almost religious proportions that it had aroused, suggesting that it was anti-intellectual and insufficiently attentive to the sound traditions of scholarship.[49] Others again thought that the visitors were too far ahead of Australian educational possibilities and presented educational programs that were 'beyond the limits of practical application'.[50]

---

[43] Cunningham, *Education for Complete Living*, p.xxiii.

[44] *The Herald* (Melbourne), 1 September 1937, p.10.

[45] B.N. McKenna to K.S. Cunningham, 10 January 1936, ACER archives, series 37, vol.90.

[46] W.J. Adey to K.S. Cunningham, 18 October 1937, ACER archives, series 37, vol.92.

Public criticism, however, was very limited. The critics were remarkably few. There was undoubtedly a wide enthusiasm for the speakers and their various messages. The general stirring that had taken place was lasting. The great effect of the conference was that it initiated a change in the climate of Australian education. Many of the thousands of teachers who attended the sessions of the conference were never quite the same again. The teachers and administrators who were affected did not go away and immediately reform the structure and processes of Australian education. Many of the practices that came under criticism remained for many years, but the practitioners were aware of them, were more tolerant of criticism, and worked gradually to change them. The wartime conditions of World War II, which followed only two years after the conference, brought with them more flexibility in organization and more social relevance in school activities. Post-war educational proposals, in consequence, had in them a great deal of the spirit of the conference, and set much of the pattern of educational thinking for the next two decades. For this outcome, its impact on the climate of educational thought in Australia, it could be said that the ACER was in no small measure responsible.

---

[47] L.C. Robson, Sydney CEGS, to K.S. Cunningham, 11 September 1937, ACER archives, series 37, vol.92.

[48] *Courier Mail* (Brisbane), 9 August 1937.

[49] See, for example, the editorial in *The Australian Teacher*, 1937, 25(2).

[50] D.B. Copland, Faculty of Commerce, University of Melbourne to K.S. Cunningham, 5 October 1937, ACER archives, series 37, vol.92.

The conference was followed up by the publication in the next year of a distillation of 71 of the addresses in a volume entitled *Education for Complete Living*. It took many months before all the manuscripts were finally collected. The NZCER had decided to publish a similar volume, *Modern Trends in Education*, on the shorter conference held in New Zealand immediately before the Australian one. The procedure was the same in both cases. The editor with an assistant selected appropriate manuscripts, abbreviated them, and grouped them under appropriate headings. In Australia the work was done by Cunningham with Radford's help. About a quarter of the selected addresses were common to both publications which appeared in 1938. *Education for Complete Living* was an unwieldy volume of 682 pages. It became a reference book used occasionally by students in teacher education courses, and a source of quotation and inspiration for a variety of lectures on educational topics during the next ten years.

Another useful outcome of the conference was the establishment of sections of the NEF in each of the States. Tasmania already had a group in existence in 1936; in 1937, following the conference, Queensland, New South Wales, and South Australia established NEF sections, and, in the following year, Western Australia and Victoria. The Victorian section had its headquarters in the ACER offices and Radford was its first secretary. *New Horizons* was started in 1938 as the journal for the Australian NEF. The Australian branches flourished in the immediate post-war period, organizing a second similar conference in 1946 with 15 overseas speakers and over 8000 registrations for full attendance, and in 1951 they were able to report to headquarters in England that their continuing membership was 1000.

Cunningham, on the occasion of his retirement, listed the organization of the NEF Conference and the contribution of the ACER to the improvement of library services in Australia as among the highlights of the ACER's activities. Each, he thought, might have been regarded 'as a border-line case for a research centre to take up'[11], but each seemed appropriate at the time and proved to be of considerable significance for Australian cultural life.

The ACER's Contribution to Library Development in Australia

In the 1930s and 1940s, Tate and Cunningham made a considerable contribution to the movement to improve library services throughout Australia. Their work was not done as a part of any ACER policy but stemmed from the personal interest that each man developed in that field. In their efforts they had the support of the Carnegie Corporation which had a strong interest in the improvement of libraries and, with the Council's approval, they were able to make use of the ACER's facilities in their activities.

Tate's interest in library affairs preceded his appointment as president of the ACER in 1930. On behalf of the Library Association of Victoria of which he was president, he had written to the Carnegie Corporation in 1929 to sound out its interest in sponsoring a survey of library conditions in Australia. The Corporation was unable to accede to the request at the time and suggested a later application. Three years later, therefore, in 1932, Tate raised the matter again on a visit to New York, and in 1933 he sent a letter formally asking for the survey and indicating that his request had the support of the state and parliamentary librarians, the university vice-chancellors, library associations, and directors of education. He wrote:

> An important thing just now is to inform Australians authoritatively where they stand in the matter of library facilities. When that is done our public will know what is expected of them.[12]

'The Australian Council for Educational Research', he added, 'would assume responsibility for organizing the survey'.

The response was favourable and Ralph Munn, Director of the Carnegie Library in Pittsburg, and, later, President of the American

---

[11] Australian Council for Educational Research, *Twenty-Fourth Annual Report 1953–1954*. Melbourne: 1954, p.10.

[12] Frank Tate to F.P. Keppel, 28 November 1933, ACER archives, series 41, vol.85, filed under C.

Library Association, and Ernest Pitt, Chief Librarian of the Public Library of Victoria, were appointed to conduct the survey.

Munn arrived in May 1934 and spent two months inspecting libraries throughout Australia. The Munn-Pitt report, published by the ACER in 1935, was in Keppel's view 'one of the best surveys ever made for the Corporation'[53], and Cunningham thought it 'one of Australia's important social documents'.[54] It was a trenchant criticism of Australian libraries. 'As a whole', the report said, 'Australia was better provided with local libraries in 1880 than it is today [1934].'[55] In the establishment of free public libraries, 'Australia ranks below most of the other English-speaking countries'.[56] Library stocks were pathetically out of date, there was 'not an acceptable children's lending library in all of Australia'[57], there was no satisfactory library to be found in any secondary school, librarians were poorly trained, there was no library school or system of examination and certification for librarians, and the professional services provided in Australian libraries were weak and out of date. The report recommended that the Commonwealth National Library should develop a substantial role after the style of the Library of Congress, that the state public libraries should provide both reference and lending services, that rate-supported municipal free libraries should be established, that regional schemes should be developed, and that standards of entry to the librarian profession should be raised.

The report was the beginning of a new era for Australian libraries, whose history is now frequently divided into A.M. and P.M., before and after Munn.[58] It stimulated the free library movement that, with Tate's enthusiastic support, began in New South Wales in

---

[53] F.P. Keppel to E.R. Pitt, In K.S. Cunningham, *The Australian Council for Educational Research and Library Services in Australia*, Melbourne: ACER, 1961, p.16.

[54] ibid., p.15.

[55] Munn and Pitt, *Australian Libraries*, p.23.

[56] ibid., p.23.

[57] ibid., p.103.

[58] N. Horrocks, *The Carnegie Corporation of New York and its Impact on Library Development in Australia*, (PhD thesis, University of Pittsburgh 1971). Ann Arbor, Mich.: University Microfilms, 1973, p.214.

1935 and spread throughout most Australian States during the next 15 years. In Tasmania, in particular, the movement had a strong connection with the ACER. G.V. Brooks, the Director of Education, who had recently travelled overseas on a Carnegie grant, was influenced by Tate to play a greater part in improving Tasmania's library services. Parker also was encouraged to increase his participation, and the Tasmanian teacher then seconded to the ACER, C.C. McShane, developed an interest in library work while in Melbourne and on his return to Hobart in 1934 became associated with Parker. He took a leading part in the free library movement when it began in Tasmania, and eventually became deputy state librarian. Each State, following the Munn-Pitt report, had its own independent inquiry which led to the passage of a library act setting up a library board to promote municipal free libraries, and encourage better training for librarians. Cunningham became a member of the board of inquiry eventually set up in Victoria in 1940, whose report in 1944 led to action in 1946.

The Munn-Pitt report also led to the establishment of the Australian Institute of Librarians. The initial meeting was chaired by Tate, took place in Canberra during the NEF conference there in 1937, and was addressed by Salter Davies, one of the NEF speakers who, in 1934–35, had chaired a committee in England to look into libraries in secondary schools. The Institute with an initial membership of 144 was an association of professional librarians established with a determination to improve standards of librarianship. It set up a board of examination and began to hold annual conferences at which professional papers were offered, discussed, and eventually published. Tate was elected an honorary member in 1938, and in 1941 Cunningham also, 'as a sincere expression of appreciation of the enthusiasm with which you have assumed Mr Tate's mantle in this as in other educational matters'.[19]

The report and the widespread discussions and enquiries that

In 1937, the ACER published a pamphlet which set out the aims and needs of libraries in Victoria, and urged readers to join the Free Library Movement: Free Library Movement, *Free Public Libraries*, Melbourne: ACER, 1937.

[19] E.R. Pitt to F. Tate, 25 June 1938, ACER archives, series 41, vol.86; Jean F. Arnot to K.S. Cunningham, 9 September 1941, and H.L. White to K.S. Cunningham, 25 September 1941, ACER archives, series 41, vol.87.

followed initiated a new spirit of co-operation between libraries. Inter-library loans, the compilation of union catalogues, the distribution of documentary films, and assistance by the stronger libraries in the training of staff for the weaker ones were some of the evidence that Australian librarians were beginning to work substantially together to bring Australian library services into a responsible relationship to the needs of the twentieth century. 'Till about ten years ago', a librarian wrote in 1948, 'Australian libraries had not played a very wide role in our social and cultural life, but since 1934 there have been developments so promising as to give great hope for the future.'[60]

Progress was not rapid, but it was at least discernible. It took almost ten years for all the States to pass the appropriate legislation, and it took even longer before the effects of improved training could be fully seen in library practice. To try to keep the library question before the public and to maintain some momentum in the program, Keppel and Tate agreed that the ACER might collect together a small committee of librarians to advise the Carnegie Corporation from time to time on any further assistance that it might give. The Library Group, as it was called, consisted of Tate, Cunningham, and usually the four principal public librarians from Sydney, Canberra, Melbourne, and Adelaide. It was set up in 1935 and remained in operation until 1948. In 1936 and 1940 it asked the Corporation for funds to support the Free Library Movement and to promote the training of librarians. The amounts received from the Corporation totalled about A£10 600 and were deposited with the ACER to be used as the Library Group decided. The funds were used to assist in travel, in publicity for free libraries in all States, in the subsidizing of students and courses of training at the public libraries which the Library Group members represented[61], and in making grants to the Australian Institute of Librarians to further its purposes. In 1947, the balance of the money provided by the Corporation to assist the training of librarians was handed over to the Institute, in 1948 the Library Group was dissolved, and finally in 1950 the remaining

---

[60] N. Lynravn, *Libraries in Australia*, Melbourne: Cheshire, 1948, p.8.

[61] The first formal training school for librarians in Australia was established by J.W. Metcalfe at the Public Library of New South Wales, in Sydney. Its first course, in 1938, was for teacher-librarians.

Carnegie funds administered by the Group were transferred from the ACER to the Institute which had by then become the Library Association of Australia.

Two other useful contributions to library development were made by the ACER during the 1940s. In 1945 it made a grant towards the publication of a report, *Libraries in Secondary Schools*, written by F.G. Kirby for the Victorian Institute of Librarians. Kirby found that, seven years after the Munn-Pitt report,

> as far as the State of Victoria is concerned, there still exists the lack of any definite library policy for schools, of any scheme of training for school librarians, and in most schools, of any clear conception of the place of the library in the school curriculum.[62]

In an enthusiastically written introduction, Cunningham endorsed Kirby's proposals for the recruitment of fully trained librarians, the development of special courses in school librarianship, and the recognition of the library, by state education departments, as an essential service in modern education. He wrote:

> Above all there should be a new concept of the library as a basic educational tool with its efficiency kept at its maximum through the full use of modern library technique.[63]

In 1946–47, L.R. McColvin, the City Librarian of Westminster, England was sent to Australia by the British Council at the request of the federal and state governments to advise on the present condition and future possibilities of libraries in Australia. McColvin was a skilled librarian and a dynamic speaker and broadcaster who provided great stimulus to the library movement. The Prime Minister requested the ACER to make all the arrangements for the visit which lasted three months, and the ACER was responsible, with Carnegie funds, for the publication of the report in 1947. McColvin's examination was a thorough one, as much concerned with the processes of library management as with the provision of libraries. His criticisms were similar to those of the Munn-Pitt report, and he expressed disappointment at the slowness of the process of reform. He acknowledged that substantial progress had been made in New South Wales and Tasmania, but overall, he wrote, 'Australia cannot afford to spend another 12 years doing so little'.[64] Provision of libraries was lagging and so were the services. He reported:

---

[62] F.G. Kirby, *Libraries in Secondary Schools*, Melbourne: MUP, 1945, p.7.

[63] ibid., p.4.

> Australian libraries are not adopting, generally, the best and most up-to-date methods. In some places methods are primitive, inefficient, and expensive—methods which, in fact, have long since been discarded in England.[65]

McColvin's findings were a disappointment to those who had struggled for better library service during the past 12 years, but it was a thorough and suggestive report which came very appositely at a time when the intellectual and financial climates were more favourable to educational and cultural expansion at both school and adult levels.

Once the Library Association was firmly established and the lines of development firmly pointed out and agreed on, there was no further need for serious involvement by the ACER in the field. Cunningham and Tate, with the support of the Carnegie Corporation and the connivance of the ACER, had accepted what Cunningham called a 'promotional' activity[66] in an area where they were persuaded there was a vital educational need. They regarded this as a legitimate educational service for which the ACER's constitution made provision. No serious effort was ever made to define the kind of educational service that was appropriate to the ACER; it was not restricted, for example, to service that might depend on or might stimulate educational research. The organization of the NEF Conference and the activities directed towards library development—the two outstanding examples of such services in the 1930s—were efforts which appeared appropriate at the time, had a great deal of professional support, involved evaluation and stimulation by overseas educators, and led to follow-up activities in which some ACER officers could effectively take leading parts. They were relevant, feasible, and potentially of great educational value.

---

[64] L.R. McColvin, *Public Libraries in Australia*, Melbourne: MUP for ACER, 1947, p.18.

[65] ibid., p.71.

[66] Cunningham, *The Australian Council for Educational Research and Library Services in Australia*, p.31.

The ACER in the 1930s

Cunningham, later, thought that 'the rate of growth of ACER itself was pretty slow'.[67] This, he suggested, could have been an effect of the depression years but he was not clear why this should have been so. The main impact of the economic depression came in the early 1930s, at a time when the ACER's income was guaranteed by the Carnegie Corporation which in fact supported it throughout the whole of the 1930s. There was no lack of manpower, though not yet trained for educational research, nor any lack of research to be done, nor any falling off in the demand for services to be rendered by the ACER. The simple fact is that progress was deliberately slow. The Council in 1933 decided that it would not spend all the annual grant that it received from the Carnegie Corporation, but would invest the £20 000 it had already saved and, each year, would set aside its savings to build up an endowment fund that would help to keep the institution afloat when the Corporation's grants ceased at the end of the promised ten-year period. It managed to put into the fund somewhere about 50 per cent of its annual grant.[68] In the event it was probably a wise policy. The anticipated support from state and federal governments was not forthcoming when the Corporation brought its support to an end, and the savings helped to tide the Council over a very lean period, during the war years, until government support became available in 1946.

The record of the first ten years, however, was a very creditable one. The institution remained small, an Executive Officer, one permanent research assistant, two teachers on two-year secondments, and a secretary, but the amount of interesting and useful work accomplished by them and through their influence was considerable. The 60 publications in the educational research series that had appeared by 1940, though of varying significance, were of good quality and, over all, made a monumental contribution to Australian educational literature. Several of them, such as those by McIntyre, Cunningham, Wyndham, Biaggini, and Phillips were regarded with respect by educators in their respective fields overseas. The reports, however, in Cunningham's view, were not as widely noticed in Australia as they deserved to be and their impact on Australian education was disappointingly small.[69]

---

[67] K.S. Cunningham interview with B. Bessant, p.23.

[68] The resolution was passed at the annual meeting, Melbourne, 18–21 August 1933.

Capitalization of Portion of Income:

Professor Mackie moved and Professor Lovell seconded the following motion. 'That from the present surplus be set aside a sum of £20 000 as a capital fund; secondly, that in each succeeding year of the ten-year period during which the grant from the Carnegie Corporation is guaranteed a sum of not less that £1000 be added to this capital sum; and, thirdly, that the interest accrued from these sums be added each year to the principal fund.' This motion was agreed to unanimously.

There were some observers, too, who were not convinced of the worthwhileness of the ACER's accomplishment. When the Victorian Teachers Union was considering the possibility of a grant to the ACER, one leading member declared that after watching the Council with great interest since its inception and with a great deal of sympathy, he was prepared to say that it had not justified its existence and had not warranted any contribution from the union.[70] Even as late as 1945, the Brisbane *Telegraph* stated:

> Few people realize that education in Australia is . . . being probed scientifically by a body few people have heard of, but whose work is rapidly becoming more comprehensive. The Australian Council for Educational Research is like the British Navy—it works silently.[71]

The NEF Conference, with the resulting publication, *Education for Complete Living*, however, was a striking and exciting stimulus to Australian education which remained in the minds of many Australian educators for many years to come. It was the most dramatic part of the ACER's task of vitalizing Australian education that Sir Fred Clarke, Director of the London University Institute of Education, had commended in 1935 on a visit to Australia. He wrote:

> New Zealand and Australia seem to me to be in some danger of

---

[69] Australian Council for Educational Research, *Ninth Annual Report 1938–1939*, Melbourne: 1939, pp.22–3.

[70] *Teachers Journal* (Victoria), 1936, 19(2), p.85.

[71] Cutting from *Telegraph* (Brisbane), 1 August 1945. ACER archives, series 49, item 9.

> devitalization through excessive paternalism in government and the mechanizing of what should be spirited things. The ACER represents a healthy counter-attack through an organ of free energies. More power to it.[72]

But perhaps the achievement of most importance was that the ten years of steady research accomplished by the ACER had helped to establish educational research as a recognized part of educational activity in Australia, and had begun to demonstrate for some persons the possibility of a career in that field.

In its earliest years the ACER's contribution to research was made in four ways: (a) its own officers undertook some programs they had themselves thought up and designed; (b) it published worthwhile research, both that done by its own staff or with its assistance and independently; (c) it employed a small talented staff of seconded teachers who had the opportunity to gain some experience and training in research, and later to use their skills on their return to their respective education departments; and (d) it subsidized research by paying grants to individuals who applied to them for support.

The research produced by the ACER staff was a good solid contribution and a demonstration of what was possible with a very slender team of researchers. Its publications were the first substantial body of research literature in Australian educational history and were a considerable encouragement to further work in educational research.

In the long run, the stimulation and research experience provided to the temporary seconded staff were significant in the development of educational research in Australia. Beginning with W.T. Price from the Victorian Education Department in 1931, the scheme of seconding young teachers from the education departments to the ACER for training in research continued throughout the 1930s and, intermittently, later. The ACER did not succeed in persuading the departments to pay the salaries of the seconded teachers, as had been hoped, nor did it provide them with any systematic training. The young recruits simply joined in the work at the office, learning from general discussion, from books, or from taking courses at the

---

[72] F. Clarke to K.S. Cunningham, 11 August 1935, ACER archives, series 50, vol.49.

University of Melbourne. They actually did most of the research that took place at the ACER headquarters with occasional advice from the Executive Officer who was mainly occupied with administrative work, travel, and the writing of speeches and articles on a variety of educational topics. Of the nine seconded teachers at the ACER during its first ten years, only two had, up to 1940, returned to their States to positions in which they were involved in research. Later, however, six of them became deeply involved in educational research. Though Cunningham appeared to have little to do with their selection, he was very fortunate in the quality of those chosen; most of them subsequently occupied positions of importance in their home States.[73] Their stay with the ACER appears to have confirmed them in their enthusiasm for educational research, and to have given them an opportunity to practise research techniques and gain the experience of working within a small team of researchers.

There were 155 grants made to individuals for approved projects in the first ten years. The grants made their work easier and more feasible but it is doubtful whether they provided a fundamental stimulus. Other influences were also at work. The university study of education was beginning to be significant, particularly in the Bachelor of Education course at the University of Melbourne, which grew in popularity during the 1930s and drew students from all States. It required students to complete a piece of research and gave rise to many educational investigations similar to those supported by ACER grants. Many of the Melbourne graduates continued their interest and subsequently applied to the ACER for support in later researches.[74] Sydney Teachers College too in the 1920s and 1930s had developed a substantial staff, some of whom were keen researchers whose work appeared in monographs published by the College. In the 1930s a beginning was made in the establishment of research branches within the state education departments. Tasmania set up a research unit in 1934 with Parker in charge, to be joined by McShane in 1935 on his return from the ACER. They began a survey of school libraries, and the development of standardized tests. In 1935 Wyndham became the first research officer in the New South Wales Department of Education, and undertook two substantial projects—an analysis in successive years of high school entrance results, and a follow-up study of the school history of gifted children enrolled in special primary school classes in Sydney. In 1938 the Victorian Education Department appointed J.A. Cole as research and curriculum officer, and he began work on the revision of various school courses. It would be wrong to assume that the ACER had any responsibility for the establishment of these research branches. Its example, however, probably stimulated the various education departments to think more seriously about research, and there was a close connection between the ACER and the research officers initially appointed. The branches were not generously staffed and did not prove to be very productive for some considerable time. They were, nevertheless, another resource in Australia's slowly growing research effort, along with the universities, teachers colleges, and the ACER.

---

[73] W.T. Price became a headmaster; W. Wood principal research and guidance officer in the Queensland Department of Education and later chairman of the Board of Advanced Education; C.C. McShane research officer in the Tasmanian Education Department, and later Deputy Principal Librarian in Tasmania; G.A. McIntyre, a biometrician in CSIR; D.J.A. Verco, head of the research branch and later Director-General of Education for New South Wales; C.W. Branson, chairman of the Industry Advisory Committee, and general manager of the Chamber of Commerce and Industry for South Australia; B.W. Ross, a regional director, Headmaster in Tasmania; W.C. Radford, Director of the ACER; and J.J. Pratt, Deputy Director of the Commonwealth Office of Education, Professor of Education at the University of New South Wales, and chairman of the New South Wales Higher Education Board.

[74] Cunningham wrote in 1931, 'The building up of good schools of education in recent years at some of the universities in Australia had steadily improved the

The Carnegie Corporation was not concerned that the ACER remained somewhat tiny. It monitored the progress of its child in various ways. In 1931 L.D. Coffman, president of the University of Minnesota, who was sent to New Zealand to study the possibility of establishing a New Zealand Council for Educational Research with a Carnegie grant, visited Australia, where he gave several public lectures, conferred with educational authorities, discussed ACER matters with Tate and Cunningham, and duly reported back to the Corporation. In 1935, F.P. Keppel the Corporation's president toured the world; he spent two months in Australia, much of the time moving around the country in company with Tate and Cunningham. On his return he produced a confidential and very

---

opportunities for advanced work in education'. Australian Council for Educational Research, *Annual Report 1930–1931*, Melbourne: 1931, p.21.

favourable report on the ACER's activities for his trustees. Three years later, in 1938, Keppel's assistant, John M. Russell the son of James E. Russell, visited Australia and looked very carefully into all Carnegie activities, paying special attention to the ACER.[75] Meanwhile Tate and Cunningham had visited the Corporation's headquarters in 1932, and many other Australian visitors travelling on Carnegie grants had been consulted on their arrival in New York. The ACER each year sent a formal report of its work and the state of its finances, and both Tate and Cunningham wrote frequently to Keppel and Russell with whom they were on close and friendly terms. Keppel thought highly of Tate whom he regarded as a fine educational administrator—a man, he thought, from whom many Americans could learn. Keppel and Russell looked on Cunningham as Tate's loyal and diligent shadow, and a person whom responsibility was slowly developing into a sound and courageous educational leader.

From the beginning the Corporation was most supportive. 'I congratulate you all on its auspicious beginning', the president wrote after the first meeting of the Council in 1930[76], and, in the following year, wrote again to Cunningham that he and his colleagues were 'all very enthusiastic about the idea, for which in the first instance we're indebted to Dean Russell, and which is now being made a reality by you and your associates'.[77] In his report after his visit to Australia in 1935, Keppel wrote about the Corporation's Australian and New Zealand activities:

---

[75] John Russell celebrated his departure on the sea voyage to Australia by a lengthy *Ode*, of which the following verses are a sample:

> Oh 55th is a pleasant street
> and 522 has its charms
> and I like my lunch at the Coffee House
> and Manhattan fire alarms
>
> But the Russell blood is full of salt
> and the Russell heart doth crave
> the sight of the water's blue expanse
> and the sound of the rolling wave
>
> So I'm taking off for the Southern Cross
> for the land of the Kangaroo
> and I'll not return till September 1
> and that goes for the Mrs too.

Carncor archives, 23 May 1938.

[76] Keppel to Cunningham, 18 November 1930, ACER archives, series 30, vol. 34.

> The Australian Council for Educational Research is distinctly the most successful general enterprise which the Corporation has undertaken . . . The Council has enjoyed from the first the sagacious leadership of Mr Frank Tate as its Chairman; it has a modest, intelligent and resourceful director in the person of Dr Kenneth S. Cunningham. Its publications are attracting attention throughout the world.[78]

At the end of 1938 when J.A. Lyons, the Prime Minister of Australia, wrote to Keppel on the occasion of the payment of the final instalment of the Carnegie Corporation grant to the ACER, and expressed appreciation from 'the people of Australia' for the generous contributions that made the work of the ACER possible, Keppel in reply spoke of 'the distinguished success' that was due 'to the devotion and intelligence of Australian teachers under the leadership of Messrs Tate and Cunningham and their associates in the Council'.[79] Eventually, when he looked back in 1942 over all the Corporation's programs for the British Commonwealth, he cited the ACER and NZCER as their top two successes.[80]

In 1939 Tate died. He had lived through the ten years of the original Carnegie grant, had organized the establishment of the ACER, and driven it lustily through its first decade. In its early years he had made the day-to-day decisions. To the seconded staff he had not been an object of admiration. He had no knowledge of educational research, and his manner was abrupt and dictatorial. He and Cunningham, however, remained close and appreciative of each other, and he had the unwavering confidence of the Carnegie Corporation. He was an active president of the Council travelling freely on its business, corresponding vigorously with the appropriate authorities when occasion required, contributing articles to journals and newspapers on its behalf, and playing a dominant role in Council meetings. After the mid-1930s, though still vitally involved in ACER business, he gave the Executive Officer rather more rein. Cunningham responded effectively, and assumed more responsibility in the direction and conduct of the Council. By 1939 Tate could have been confident that he was leaving behind him an institution well respected by educators, and a man with the presence and skill to direct it as he would have wished. As a token of the new dispensation at the council meeting following Tate's death, Cunningham asked for and was given the title of Director of the ACER.

---

[77] Keppel to Cunningham, 15 October 1931, ACER archives, series 30, vol.34.

[78] F.P. Keppel, Informal report of the president on a visit to the southern British dominions, January–June 1935, (Confidential, printed for the information of the Trustees of the Carnegie Corporation of New York), New York, 1935, p.17.

[79] J.A. Lyons to F.P. Keppel, 22 December 1938; and F.P. Keppel to J.A. Lyons, 1 February 1939, Carncor archives.

[80] F.P. Keppel, memo 26 January 1942, Carncor archives.

5

THE ACER AT WAR

At the annual general meeting in 1939, following Tate's death, a new constitution was approved. With one exception the changes made were minor. The position of secretary of the executive was abolished, the Executive Officer became the Director, the executive was required to keep council members informed of its activities between general meetings, the annual general meeting would no longer be held in August nor in Melbourne or Sydney only, and a deputy could be appointed where a council member was absent from Australia. In a final section added to the constitution, the Institutes were defined, their functions outlined, and a procedure established to secure membership of the Council from a State in which no Institute existed. The one significant change was the raising of the Council's membership from nine to ten by the addition of a member to represent those Australian governments which contributed A£1000 towards the financial support of the Council. The new provision reflected the Council's growing concern about its financial future. It also was a first infraction of the principle that the ACER should, in the conduct of its affairs, be wholly independent of governments and other educational institutions.

Two months after Tate died, World War II broke out. The six years of war brought to the ACER a very different set of contacts and tasks, and had several lasting effects on its development.

The first impact of the war years was the involvement of ACER personnel in a variety of federal government committees. Cunningham noted in his 1940 annual report that he and McIntyre had been invited to become members of a governmental conference on youth employment and that this was the first time in its history that the ACER had been invited to take a constituent part in a federal government inquiry. He had previously served on Victorian committees but not, till 1940, on one sponsored by the Australian

Government. The committee was intended to be a permanent one, and the ACER fed into it the evidence it had recently collected on the effect of raising the school-leaving age on the employment of youth. It was proposed also to try to get a full occupational history of every military trainee called up for compulsory service, but Cunningham was rightly doubtful of the viability of the committee and its schemes as the tempo of the war increased. He and other members of the committee were, interestingly, thinking at that stage of problems and issues of post-war reconstruction, and already the jolting influence of war had affected his perception of society. In 1931 he had written to Keppel in scathing terms about the irresponsibility of contemporary Labor politicians who, with the onset of the depression, had refused to cut back on social services, and wanted to modify the prevailing liberal-capitalist economy.[1] By 1940 his feelings had somewhat changed, and he felt, too, that the climate of thinking among a 'number of thoughtful people' had also changed. He wrote:

> Out of the present confusion, there is slowly emerging the conviction that the individual in the post-war world will have to be prepared to subordinate individual preference to a more rationally planned scheme than that which we have been accustomed to.[2]

He added in an address in 1944, 'There is no alternative between social planning and chaos'. He was to find that in the war and post-war years his sympathies turned more towards the policies of the semi-socialist Labor Party, and that it was through Labor governments that the ACER in that period was to secure the financial support which it sought.

After discussion with the staff and the executive, Cunningham, in June 1940, wrote to the Prime Minister, drawing his attention to the ACER's growing expertise in test construction and asking whether any of the government departments and armed services were interested in using psychological tests in the selection of personnel for various national services. The Prime Minister replied that none of the departments was at that time regularly using any psychological tests. The ACER's letter, however, led to a number of consultations and eventually to involvement in several programs. The navy responded first, obtained a report from the ACER on possible testing procedures in the selection of naval personnel, but did not, at that time, take the matter any further.

---

[1] K.S. Cunningham to F.P. Keppel, 26 May 1931, Carncor archives.

[2] Australian Council for Educational Research, *Tenth Annual Report 1939–1940*, Melbourne: 1940, p.16.

Work with the Armed Services

The first significant activity was in November 1940 when the ACER examined 600 army signallers with a large battery of tests. It was found that the two hours of testing provided results, in 92 per cent of the cases, that were very close to the ratings of the men given by their instructors after three months observation of them. In the following July, the army established an advisory psychological committee which included Cunningham, and commissioned the ACER to prepare an intelligence test. In May 1942, H.L. Fowler, who had long been closely connected with the ACER, was released from the University of Western Australia to take charge of a newly established Army Psychology Service but was invalided out in the same year. The new venture nevertheless flourished, and henceforth most of the ACER's contacts, previously largely with the Army Medical Service, were made through this psychology service. The Australian Army Classification Test, as the ACER's intelligence test was called, had two equivalent forms of 100 items of which about one-third were non-verbal. It was ready for use by the army early in 1942. The ACER also made available a test of mechanical comprehension, three tests of clerical ability, and an adaptation of the Minnesota Paper Form Board Test. From October 1942 all recruits were given the full battery of the four types of tests. Subsequently, in 1943, a completely non-verbal intelligence test was also prepared.[3]

From 1942, for the following three years the staff of the ACER was largely occupied in activities connected with the war effort. 'At the present time', Cunningham wrote in April 1942, to the Director-General for Manpower, 'most of the regular work of the Council is suspended and practically all activities are directed towards research, advice, and service provided for Government Departments.'[4] To cope with this work the professional staff doubled in six years, moving up from five in 1939 to ten in 1945. The main burden of the work of test development throughout the war fell on G.H. Bradshaw who had joined the staff in 1940 on secondment from the Western Australian Education Department. Cunningham, in 1945, acknowledged Bradshaw's contribution, expressing in his annual report his 'special indebtedness to him'.

---

[3] K.S. Cunningham to the Director-General for Manpower, 9 April 1942, ACER archives, series 6, vol.110.

The ACER was not the only civilian educational and psychological group that helped to provide testing services during the war. The Australian Institute of Psychology in Sydney, that the ACER had helped in its early years, was represented on the army's advisory committee and also played a useful part in air-force selection and placement. The departments of psychology at the University of Sydney and the University of Western Australia and the vocational guidance section of Sydney Technical College also made substantial contributions. When, in 1943, Cunningham was asked by the federal Directorate for Manpower to provide a list of trained psychologists and to comment on their likely usefulness to various aspects of the war effort, his assessments were brief and unsparing. On the whole he was pleased with his colleagues, but he was not blind to some of their imperfections. He, Lovell, and Fowler seem to have been generally regarded at the time as persons who could speak with most authority on psychology in Australia, and when the Australian branch of the British Psychological Society was established in 1945, Lovell was its first chairman, and Cunningham its second.

Cunningham was not satisfied that the psychological resources of Australia were being adequately employed. He wrote to the Prime Minister again in April 1942 to point out what he took to be 'a grave weakness' in the war effort. He argued the case for the more extensive use of 'scientific knowledge and methods in the selection and allocation of manpower', and pointed to a number of misfits and wasted effort that could have been avoided if appropriate tests and properly trained psychologists had been used. The Prime Minister circulated the letter to various departments, let Cunningham know what testing was currently being done, and assured him that the departments were keeping the matter under notice.[5] The correspondence served to keep the matter of psychological testing and the existence of the ACER before the relevant authorities. Gradually, testing and guidance procedures were extended in the armed services and various manpower departments and the part played by the ACER in the war effort steadily increased.

---

[4] K.S. Cunningham, The use of psychological methods in war-time Australia, *Occupational Psychology*, 1943, 17(3) 113–14.

Among the armed services, the ACER worked mainly with the army. It was the main test constructor for the army, and was involved from time to time in revising the tests it had produced. In 1944–45 it provided about 150 000 copies of its tests. It also supplied copies of the Otis intelligence test for use in selecting NCOs and officers in the Australian Women's Army Service. Otis intelligence tests were also supplied to the navy for use in officer selection. For the vocational guidance section in the air force, the ACER provided the tests it had constructed for the army and a variety of other psychological tests. For all three services, much of the time of the ACER's staff was occupied with answering enquiries, for example, on the equivalence of school grades in the different States, on methods of psychological warfare in other countries, and on the numbers in each age group that might be regarded as potential recruits.

The main weight of the ACER's wartime contribution, however, was not with the armed services but with government departments involved in activities related to the war.

The ACER and the Department of Labour and National Service

One of the first tasks, begun in 1941, was the development of a battery of tests for trainee fitters and turners in munitions work, at the request of the controller of technical training in the Department of Labour and National Service. This was a substantial and distinctive part of the ACER's wartime testing program. It was a first and successful venture into aptitude testing. The tests went into operation in each of the States in 1942. On the basis of this work, the Commonwealth Government made a grant to the ACER of A£1000 for the financial year 1942–43 to enable it to develop further suitable aptitude tests in a variety of fields for munitions and aircraft trainees and for post-war rehabilitation in several broad categories.[6] It was a most fortunate association. It was the first substantial commission that the ACER had ever received, and it was the beginning of several payments by the Commonwealth Government that led four years later to an agreement by the Commonwealth and States to provide an annual subsidy for the ACER. Construction of the tests, monitoring their use, and revision in the light of wider experience continued throughout the remaining years of the war.

---

[5] K.S. Cunningham to John Curtin, 7 April 1942, 8 April, 1942; and J. Curtin to K.S. Cunningham, 2 July 1942, ACER archives, series 6, vol.110.

Two other sections of the Department of Labour and National Service made use of the ACER. For the Reconstruction Division of the Department, the ACER was asked to formulate a statement and research program on two topics: educational policy, including the school leaving age, and its relation to the social services; and educational opportunities in relation to income. Cunningham forwarded an appropriate statement to the Department early in 1941. For the Welfare Division of the Department, the ACER gave courses in statistics, general psychology, and industrial psychology for welfare supervisors and for welfare officers in training during 1941–43. The ACER continued to advise and to supply tests to the Department during the course of the war and in the post-war years.

The Directorate of Manpower within the Department decided in 1943 to set up a Psychology Advisory Committee of four members two of whom were Lovell and Cunningham. Their task was to advise on the placing and employment of qualified psychologists[7], and to prepare a register of them. During that year two of the ACER's seconded staff, S.S. Dunn from the South Australian Education Department, and R.R. Priestley from the Queensland Department of Education were lent for a six-month period to the Directorate of Manpower to help staff a newly developed vocational guidance bureau in Melbourne.

---

[6] E.P. Eltham (Department of Labour and National Service) to K.S. Cunningham, 15 July 1942, and 4 August 1942, ACER archives, series 6, vol. 110.
The work and payment were both approved for the government by an official, quaintly entitled secretary of the Local Dilution Committee.

[7] W.C. Wurth to K.S. Cunningham, 22 April 1943, ACER archives, series 6, vol. 110.

The ACER's Other Wartime Services

Tests were requested from the ACER and supplied by them to a number of other departments such as Aircraft Production, War Organization of Industry, Supply and Shipping, Postmaster-General, and the Repatriation Commission at different times during the latter part of the war. Various small tasks and pieces of advice, also, were asked for and provided. The Department of Rationing, for example, enquired about data on the size of children at various age levels, War Organization of Industry wanted help in distinguishing between toys and educational apparatus, and Labour and National Service asked the ACER to prepare a booklet on interviewing.

Cunningham could feel that he and the ACER were making a wide impact and had gained national recognition in the educational, welfare, and personnel fields. His letters and his annual reports at that time mentioned often how 'gratifying' it was that the ACER had been commissioned or he himself had been asked for advice or invited to join a committee on various significant matters. He was then in his early fifties, an associate of leaders in Australia's political, military, and academic life. He and the ACER had arrived. It must have been a considerable surprise, therefore, when in October 1944 an incongruous letter arrived for Lieutenant K.S. Cunningham curtly informing him that, as an officer on the retired list, he had neglected to report his most recent address and that he was to comply with this requirement immediately. He had retained his rank and membership of the reserve since World War I. He duly notified the army official that his address had not changed, and thereby discharged his military responsibilities for the year.[8]

The ACER concentrated throughout the war on developing improved methods of selecting and placing personnel in the armed services and in wartime civilian employment. Vocational guidance had interested Cunningham from the time when he had first worked in the psychology laboratory of the Melbourne Teachers College and he had tried without much success to stimulate interest in that area of applied psychology. The requirements of the armed forces in

---

[8] Australian Military Forces, Headquarters Victoria Line of Command Area to Lieutenant K.S. Cunningham, 18 October 1944, ACER archives, series 50, vol. 50.

World War II and the effort to rationalize civilian employment led, after much initial hesitation, to an extensive demand for aptitude testing and vocational guidance. The small number of individuals with a background in psychology and experience in constructing, administering, and interpreting relevant tests was to be found in two groups, one in Sydney and the other in Melbourne, which managed to maintain a reasonably close relationship.

The Sydney group associated with the University of Sydney and the Sydney Technical College contained C.A. Gibb, who spent several months at the ACER, W.M. O'Neil, who visited and frequently advised the ACER team, and J.F. Clark. All three subsequently became professors of psychology. From the same background were two who, during the war, worked in different sections of the Department of Labour and National Service: W.J. Weeden, who later became Director of the Commonwealth Office of Education; and R.W. McCulloch, a member of the council of the ACER from 1961 to 1965. P.H. Cook, a Melbourne psychologist, also worked in the Department of Labour and National Service of which he was later to become the head. He, Weeden, and McCulloch were among the ACER's main contacts in that department. In 1944 the ACER published Cook's *The Theory and Technique of Child Guidance*, an introductory manual for students, one of the few books it was able to produce during the war years.

The Melbourne group were at the ACER. G.D. Bradshaw remained there for six years throughout the war from 1940 till October 1946. After directing much of the ACER's wartime work on testing and guidance, he resigned to enter the test construction and research section of the Commonwealth Employment Service. He was subsequently a leading member of the VIER and its representative on the Council of the ACER from 1967 to 1975. With him for much of the time was J.C. Kenna, a Sydney graduate, who was appointed in 1940, joined the RAAF from 1944 to 1947, and then resumed work with the ACER for a further year. S.B. Hammond, a graduate in psychology from Western Australia, worked for the ACER from 1941 until he joined the Army Psychology Service at the end of 1942. S.S. Dunn and R.R. Priestley, already mentioned, came to the ACER in 1941 and 1942 respectively, and remained until October 1943. Elwyn A. Morey, a Melbourne graduate, was appointed in 1942 and stayed until November 1945 when she left to work for a doctorate at the University of California. She wrote one of The Future of Education pamphlets on *The School Leaving Age* in 1945, and contributed to *Children Need Teachers*, a study of the recruitment and training of teachers. These were enthusiastic and bright young people who all subsequently entered on academic careers in various Australian universities.

In 1941 the Department of Home Security was concerned with possible plans for evacuation in the event of the Japanese entering the war. Kenna, who was then on the ACER's staff, was commissioned to analyse publications dealing with evacuation in England. He produced a short report, *Educational and Psychological Problems of Evacuation*, which the ACER published and distributed widely for the Department in 1942. For the same Department, in 1942–43 the ACER produced three other pamphlets and a technical paper: *The Care of Children in War-time* for parents, *Education without Schools* describing New Zealand experiences in organizing education for children whose schools had been commandeered for military purposes, *Chalk and Talk in Civil Defence*, written by Priestley, on teaching methods for instructors in air-raid precautions, and *Mental Effects of Air Raids on Civilians* as a brief technical note for civil defence officials. Kenna and Cunningham also made a general survey and report for the Department on evacuation plans in each of the States. In 1942 Cunningham wrote an article for the *Sydney Morning Herald* on Australia's Cultural Debt to America, and subsequently used it in 1943 to broadcast on short-wave to the USA for the Department of Information.

The work of the Department of Post-War Reconstruction was of considerable interest to the ACER. Already in 1940 on the Youth Employment Committee, Cunningham and McIntyre had discussed possible post-war developments. When, therefore, he was approached for advice by the Department of Post-War Reconstruction, Cunningham responded with interest. He attended a conference to co-ordinate the armed services testing procedures, and presided over the following one to work out details of what information was required to provide the best advice on the rehabilitation of service men on their discharge. The ACER between 1943 and 1945 prepared, for various sections of the Department, memoranda on problems of rural education on the educational and psychological problems involved in housing development, and on the numbers and school attendance figures of adolescents. The most significant contribution, however, from the ACER to serious discussion of postwar reconstruction was not in the service it gave to a government department but in the production of its own series of discussion pamphlets, *The Future of Education*.

Effect of the ACER's Wartime Work

The ACER's involvement in the war effort had several important consequences. It directed the staff's activities more than ever before into the testing field. Cunningham's own talents and interests were very largely in this area, and during the 1930s the ACER had put a substantial effort into the construction, adaptation, and distribution of educational and psychological tests. During the war years, except for the production of *The Future of Education* series, the major work done was exclusively in the area of testing. Fundamentally, during those years, the ACER had become an educational and psychological testing service. It was seen to be such by the educational and other governmental authorities who thought of using its services. It was an image that was to persist and, with the establishment of an energetic test division immediately after the war, to deepen during the course of the next ten years. With this trend it became less of a general research body in education. In 1955 a brief chronological report of the Council's activities in its first 25 years, from 1930 to 1955, was published. The record from 1940 throughout the war and up to 1955 is almost entirely a listing of tests constructed and administered for various purposes. There were few other research items of any significance. Slowly the conduct of research over wider areas of education moved to the research branches of state education departments or to the growing schools of education in the universities.

The ACER's war experience gave it some stature with federal government authorities. Its wartime services caused a steady growth in the number of its staff and it began to appear for the first time as a substantial agency rather the somewhat shoestring outfit of the 1930s. Its staff advised and worked with public servants in responsible positions, and the Director corresponded frequently with cabinet ministers and heads of departments. There is no doubt that much of his contact was deliberately engineered by him, not merely to assist the war effort but also to push the interests of the ACER and eventually secure financial support from the government. The ACER's efforts, however mixed their motives, were appreciated. Cunningham's extensive service on federal government committees during wartime, culminating in an invitation to the ACER to be represented on the newly formed Unesco education committee in 1947[9], was the beginning of a continuous subsequent involvement by the ACER on federal consultative committees.

Though the ACER was principally engaged throughout the war on test development for the armed services and for various federal government departments, contacts were maintained with the state education departments. In particular the preparation of intelligence tests for Year 6 pupils in New South Wales schools, begun in 1938, was continued through to 1948, and in 1940 a program of constructing high-level intelligence tests for the New South Wales Public Service Board was begun and was to continue until 1966.

The extensive wartime contacts that were developed and the services that were provided by the ACER at national and interstate levels did lead to financial support for the ACER, and did confirm it as a significant national institution. Of significance also was the prestige which the staff, and particularly the Director, acquired during this period. The most impressive evidence of this was to be found in the election of Cunningham by his fellow social scientists in 1943 to chair for the next ten years the body that eventually became the Academy of the Social Sciences in Australia.

The work done during the war period demonstrated a view of educational research that was both narrower and wider than had been adopted, up to that time, by the ACER or by other Australian educators. The ACER's activities were largely restricted to testing and to the sampling and statistical techniques associated with a testing program. But the range of testing was extraordinarily broad.

---

[9] J. Dedman, Minister for Post-War Reconstruction to K.S. Cunningham 6 May 1947; and K.S. Cunningham to J. Dedman, 17 June 1947, ACER archives, series 6, vol.111.

W.C. Radford at Cunningham's request was accredited by the Department of External Affairs to attend the inaugural Unesco Conference in London beginning on 1 September 1945.

Assistant Secretary, Department of External Affairs to K.S. Cunningham, 5 November 1945; and R.C. Mills to K.S. Cunningham, 20 September 1945, ACER archives, series 6, vol.111.

The general ability and achievement tests developed in the 1930s were still supplied to schools and were extended into university education. The ACER moved also into a range of vocational placement tests: mechanical aptitude for various occupations, speed and accuracy tests for clerical aptitude, manual dexterity, adult general ability, and officer selection tests. This was a venture beyond the schools into the guidance and education of young adults.

The tests were supplemented by a number of related investigations and expressions of views concerned with the effect of some environments on educational opportunity, psychological development, and adult culture. Educational research was expanded to include occupational psychology; and, in considering educational development, social factors and the cultural context were seen to be relevant factors. World War II stimulated interest in adult education and the social sciences. In the post-war period, university studies in the social sciences, such as sociology, anthropology, social psychology, demography, and human geography grew considerably, and research in them came to have a great deal of relevance for education. Closer ties, therefore, between educators and other social scientists became important. In the cultivation of them, the establishment of a national forum, in which social science researchers of all disciplines could meet to exchange ideas, co-operate on common tasks, and act as a body of reference for the federal government, was a significant development. In this matter Cunningham played a central part.

Social Science Research Council of Australia

In 1942 the Prime Minister appointed a Committee on National Morale to study civilian reaction to current developments in the war. During the course of the same year, several members of it requested the Australian National Research Council (ANRC), to establish a committee to look into the possibility of establishing a social science research council. The committee, which included Cunningham as one of its members, was duly formed and it recommended that a council be set up. The ANRC, after considering the recommendation, decided to establish a provisional Social Science Research Committee, and to appoint Cunningham as its chairman. This was done in April 1943, and the first meeting took place at the ACER headquarters in Melbourne on 31 August–1 September 1943. Cunningham remained chairman of the committee for the ten years of its connection with the ANRC. The committee's first four meetings were financed by the ACER, out of the special conference fund it had established from what was left of the grant made by the Carnegie Corporation towards the expenses of the 1937 NEF Conference. When in 1952 the ANRC decided to become the Academy of Science which would not include the social sciences, the committee resolved to become an independent Social Science Research Council of Australia (SSRC). It met under its new name for the first time in August 1953; subsequently, in 1971, it became the Academy of the Social Sciences in Australia.

The SSRC was a small body of Australia's leading social scientists growing from only 23 when the committee was formed in 1943 to 50 in the first year of the Council ten years later. Education, psychology, history, anthropology, demography, economics, philosophy, political science, law, and library science were represented, largely by academics from the University of Sydney and University of Melbourne with a few persons of distinction from several other institutions and the public service. From 1946 to 1954 it published *Social Science Abstracts* summarizing, each year, books and articles in all the social sciences published in Australia. The ACER was responsible for the education section of these *Abstracts*. The SSRC also made efforts to stimulate teaching and research in the social sciences. Between 1945 and 1947, various members worked on and produced a document, *The Teaching of the Social Sciences in Australian Universities*. Cunningham was responsible for the chapter on education, and for a revision of it for a new edition in 1951; it was a rather weak review confined largely to aspects of teacher training with little or no consideration of the study of education as a social science. He was also instrumental in securing a grant from Unesco in 1947 for O.A. Oeser, a member of the SSRC, to work on Unesco's first major research project on tensions within and between communities.

Subsequently, in 1953, the SSRC applied to the Carnegie Corporation for assistance in developing its program. When the Corporation received the request, a letter was immediately sent to Cunningham for his opinion on the matter. He let the Corporation know that the SSRC held great promise, and that a good atmosphere had been built up over the years though the academic social scientists in that body were 'not very experienced in collaboration'. He hoped that help from the Corporation would 'enable us in a small way to emulate your own Social Science Research Council'.[10] The Corporation duly made a grant of A£8000 a year for five years to promote the SSRC's research activities.

The establishment of the SSRC and Cunningham's interest in it were part of a wartime climate of opinion towards some form of social reconstruction. Many of the social scientists felt it as an intellectual challenge; for others, like Cunningham, there was also a deeper emotional drive. Many years later he described the situation:

> In the early years one sensed a distinct feeling among a number of the original members that exciting possibilities were being opened up by the establishment of the new organization of social scientists . . . There was a feeling abroad that we must critically examine our community life and construct better forms of society.[11]

The Future of Education Series

The ACER's most striking response to the wartime interest in social rebuilding was the publication between 1943 and 1946 of a series of 11 pamphlets on *The Future of Education*. Two of the pamphlets were written by members of the ACER staff[12], and the others by individuals with well-known interests in the particular areas.

The first, *Education for Democracy*, by J.D.G. Medley, Vice-Chancellor of the University of Melbourne and Vice-President of the ACER, set the tone and something of the direction for the series. Medley took the point of view that Australia had not yet become a democracy, and it should become one 'if we are serious about planning a better world after the war'[13], that a society is no better than the education it provides, and that the first step towards a democratic society is the development of an educational system relevant to that form of society. For this, two things were of vital importance: real equality of educational opportunity; and the provision of practical lessons in co-operation which would enable Australia to 'advance to a society based far more upon communal and less upon individual effort than has been the case in the past'.[14] The intention of the pamphlet, as indeed, of the series, was to arouse interest in planning relevant education for a post-war democratic society, and to stimulate discussion about aims and the ways and means of attaining them.

---

[10] S.H. Stackpole to K.S. Cunningham, 21 April 1953; and K.S. Cunningham to S.H. Stackpole, 27 April 1953, ACER archives, series 30, vol.135.

[11] K.S. Cunningham, *The Social Science Research Council of Australia 1942–1952*, Canberra: SSRC, 1967, p.34.

[12] *A Plan for Australia* (1943) was a joint effort by the staff; *The School Leaving Age* (1945) was written by Elwyn A. Morey. In the case of a third pamphlet, *Education for Livelihood*, Cunningham, who did considerable editorial work on it, became the joint author largely as a protection for L.W. Phillips, Superintendent of Technical Education in Western Australia, who prepared the basic manuscript and thought that disclosure of his authorship might be officially embarrassing.

[13] J.D.G. Medley, *Education for Democracy*, (The Future of Education Series No.1), Melbourne: ACER, 1943, p.9.

Pamphlet No. 2, *A Plan for Australia*, prepared by the ACER staff, was the most controversial of the series. It was written mainly by the Young Turks on the staff and was intended to be stimulating and radical but, at the same time, logical and feasible. The plan suggested the establishment of a federal agency which would develop adult education through community centres and the subsidizing of libraries, assume financial responsibility for universities and tertiary technical education, initiate educational research and innovation in schools, and stimulate audio-visual, pre-school, and physical education. The state authorities were to retain administrative control of primary and secondary education and move into pre-school education. The machinery should be modified so as to permit long-term planning, encourage more local participation, and convert the inspectorate into a semi-autonomous district superintendency. Education should be compulsory from the age of 6 to 16, with part-time compulsory continuation schooling to 18. It should be coeducational at all stages and completely free with living allowances where needed. More consolidation of schools in rural areas was desirable, and a considerable reduction in the size of classes in all schools. Secondary education should be in multi-lateral non-selective schools for four years followed by two-year specialist schools. All examinations should be internal, and generous provision should be made for educational and psychological guidance services. Teacher training should involve a three-year course with entry at matriculation level, and the training institutions should not be under the control of the employing authorities. The existence of non-state schools, it was felt, infringed the democratic ideal which required 'a single system rather than a dual system based on differences of income level', and it was therefore important that the state should not increase the educational gap by providing financial assistance to non-state schools.[15]

---

[14] ibid., p. 12.

The nine members of the Council approved the pamphlet, but each member had reservations about some sections of it. Several changes were made in the draft, and several footnotes in Cunningham's cautious wording were inserted as modifications; but on the whole it remained a fresh and forthright statement embodying the kinds of views expressed six years earlier at the NEF Conference and made more apposite by the wartime mood of social reform. It was well ahead of its time. Most of its suggestions—for example, on the federal government role in education, consolidation, coeducation, free education, guidance, teacher education, regionalism, multilateral secondary schools, and a four-plus-two year plan for secondary education—were subsequently accepted by most educational systems in Australia with variations in detail during the course of the next 35 years.

Each of the pamphlets was submitted to the ACER staff, 'turned over to the wolves' as Cunningham put it, for thorough analysis and comment. The work was done perceptively, critically, and creatively. There was a touch of strenuous purpose and excitement in the air. The Institutes at that time reported great interest in educational reform, and it looked as if the pamphlets were to be a timely response and stimulus to the current interest shown by teachers and the public in the possibility of redesigning education in Australia. The opening comments by the young members of the ACER staff on the draft manuscript of pamphlet No.4, *The Primary School*, are a good example of the enthusiasm and forthrightness that they displayed:

> We consider that the functions of these pamphlets are:
>
> (a) to stir up a desire on the part of the public for extensive improvements in education;
> (b) to educate public opinion on education;
> (c) to present a concrete plan for reconstruction.

---

[15] Australian Council for Educational Research, *A Plan for Australia*, (The Future of Education Series No.2), Melbourne: 1943, p.31.

> We feel that the style and construction of the pamphlet prevent the fulfilment of functions (a) and (b). The style is a little too learned and consequently too dry to attract the 10 000 readers we want; sentences too long, too many long words of vague meaning, too much repetition. With regard to (c) the section on activity programmes is good, especially the diagram 'Experience in Learning'.
> However, in the whole latter half of the pamphlet, there are very few points made . . . Would you agree that we should try rather to give a picture (to the average Australian) of the primary school as a centre where teachers and parents co-operate in making life rich for the child and in preparing for a still richer life as an adult?

There followed three closely-typed foolscap pages of detailed criticism and suggestion. Cunningham's accompanying letter to the authors suggested that the pamphlet needed a 'touch of a vision of a promised land'.[16]

The blend of protest and reform, able argument and persuasive language was well maintained throughout the series. ***Education for Some***, by La Nauze, which dealt with educational inequality in Australia and the dependence of a new social order on a substantial reform of education, and ***Universities in Australia***, by Ashby, which argued eloquently for greater public appreciation of the part the universities could play in raising the quality of Australian life, were two of the most impressive of the series. But there was no falling off in standard throughout the whole series. Each contributor wrote effectively, and the ACER staff provided bright and pointed editorship to the contribution.

When the series began, one of the members of the Council, C.R. McRae, wrote to the Director: 'It seems to me that this is quite the most important job yet attempted by the ACER'.[17] It is difficult to know whether McRae was right. The series proved to be very popular during the war years. In their first year of publication, more than 5000 copies were sold of each of Medley's and La Nauze's pamphlets and ***A Plan for Australia***. Sales figures of the later ones were less but were not much behind. It was by far the best performance of any of the ACER publications up till that time. They were widely reviewed, and were used in university, teachers college, and adult education courses and with numerous discussion groups. They were stimulating material and they caught the spirit of the times. They did for education what was done on a wider scale by other series of pamphlets published during the same period, such as the Melbourne University Press series *Realities of Reconstruction* to which Medley contributed a pamphlet on *Education and Reconstruction*, and the *Look Ahead Australia* series published by Consolidated Press in Sydney which included a pamphlet by Ashby, *Are We Educated?* The ACER contribution was a continuation in excellent style of the reforming manner that it had adopted and developed throughout its existence.

---

[16] K.S. Cunningham with enclosure to C.R. McRae, 4 June 1943, ACER archives, series 42, vol.122.

[17] C.R. McRae to K.S. Cunningham, 2 February 1943, ACER archives, series 42, vol.122.

It is probable that the cumulative effect of the pamphleteering and the previous groundwork laid by the ACER and like-minded people and organizations made some impact on the views and attitudes of educators and some members of the general public; but there is no clear and unmistakeable evidence of such an impact. The pamphlets were not linked with any campaign of public arousal, any systematic effort to work on educational authorities, or any program of research planned by the ACER to bring the ideas in the pamphlets into concrete being throughout the educational systems of the Australian States. It was a gadfly type of operation. It was not a carefully designed plan of innovation. There is no evidence that any of the Council or staff had thought that the ACER might be involved in some more substantial activity.

The whole trend of the ACER's work since 1930 indicated that it was interested in bringing about educational change, but no one on its staff had given any thought to the nature of innovation and the means by which it might initiate and help to develop a consistent pattern of educational change. It relied on the construction and dissemination of tests, on the publication of somewhat unrelated pieces of educational research, on the general stimulation of teachers, administrators, and the general public by talented and authoritative educators from overseas, and on the publication of critical and inspirational material about Australian education. Could the ACER have done more? Twenty years later it did. It did not manage to formulate a theory or even a general plan of educational innovation, but it did begin to make a serious study of some of the factors involved in the process of educational change, and it did embark on the development of some curriculum materials through which useful changes could be introduced into schools.

Financial Support from Federal and State Governments

It could hardly be expected that the ACER would embark on any lengthy, ambitious, or expensive programs of research or educational service while its existence depended precariously on a grant from the Carnegie Corporation for a ten-year period which terminated on 31 December 1939. The only possibility for long-term viability lay either in building up an endowment fund of sufficient size for the institution to live on the interest from the investment or in securing some form of continuous government support. In the event, the ACER was able to do something of both.

From the very first of the ten annual payments of A£7500 by the Carnegie Corporation, the executive and Executive Officer husbanded their resources with the utmost care and, in the course of the first 15 months, up to the time when the first annual report was made, they were able to save approximately A£4000. In 1931 the Corporation agreed to remit their annual payments in American dollars, thus enabling the ACER to benefit enormously by the current rate of exchange. In that way the contribution of A£7500 became in that year A£12 255, and in the following year rose to A£13 220. In 1933 the Council decided to establish an endowment fund by investing its savings. In a report to the ministers of education at their meeting in 1937, Tate revealed that the ACER had at that point received from the Corporation £78 957 in Australian currency and, of it, had invested £40 550 in its capital fund. The New South Wales minister, understandably, expressed considerable surprise. Five years later, in 1942, the fund reached its highest point at £76 350. At that stage, when, after a three-year extension, the final instalment from the Carnegie Corporation had been received, the amount paid by the Corporation came in total to £121 310.

The endowment fund was invested in securities that paid only about 3.5 per cent in interest. The income, which in 1942 was £2702, was therefore never sufficient to cover all the ACER's running expenses, but could be used for special purposes or in emergencies to make up the deficit in expenses over income. At least, Cunningham wrote, 'the existence of such a capital fund gives a sense of security and permanence which it is highly desirable for an organization of this kind to have'.[18] The fund certainly made it possible for the ACER to survive with reasonable confidence in the interval, during the war, between the end of the Carnegie grants and the belated beginning of regular governmental support, and subsequently when at times the grants proved insufficient for the commitments the ACER had undertaken.

Tate and Cunningham began a campaign for government assistance in 1936, three years before the Carnegie grants were to end. The Conference of Directors of Education was approached for support. They were a little ruffled by Cramer's book that the ACER had just published, but agreed that each director should approach his minister to raise the matter of federal and state subsidies to the ACER at the next premiers conference. Their resolution had a slight barb in its tail when they added to it a note that 'the value of the work of the Australian Council for Educational Research would be considerably enhanced if closer co-operation were maintained with the state departments of education'.[19] Nothing came of the resolution. In the following year, therefore, an approach was made to the ministers of education.

The directors conference had been established in 1916 and met every second year. In 1936 a conference of the ministers of education was set up. It was called the Australian Education Council (AEC) and was attended by the ministers, who were accompanied by their directors and sometimes other advisers.[20] Tate and Cunningham were invited to address the 1937 meeting at which all States except Victoria were represented. Cunningham had previously sent to each minister a statement of the ACER's history, its support by the Carnegie Corporation, its present financial position, and details of the assistance provided by the ACER to each State with a costing of each item listed. At the meeting, Tate pointed out that the ministers and other educators had promised enthusiastic co-operation and support in the original discussions at the foundation of the ACER, and Cunningham suggested that if the States would give a promise of assistance it would strengthen the ACER's case when an approach was made to the Commonwealth.

---

[18] Australian Council for Educational Research, *Fifteenth Annual Report 1944–1945*, Melbourne: 1945, p.30.

[19] Summary notes of the eleventh Conference of Directors, 1936, p.9, Directors of Education Conference records.

[20] The AEC met at irregular intervals of between one and three years. The early meetings were in 1936, 1937, 1939, 1940, 1943, 1945, 1948, 1950, 1952 at which point it lapsed for six years.

The ACER's case was well supported by the South Australian and Western Australian members, and the ministers eventually agreed to a strong resolution in favour of the ACER:

> That this Council, recognizing the very valuable work in the best interests of education in Australia performed by the ACER, rendered possible by the generous financial grants received from the Carnegie Corporation, is of opinion that it would be a disaster if the work were to cease when such grants come to an end, and this Council will recommend to the State Governments that they contribute between them a sum equal to 50 per cent of the cost of continuing the work for at least a further period of ten years with a view to its establishment on a permanent basis.[21]

This was the beginning of a tedious round of consultations for the next nine years. Armed with the resolution of the ministers conference of 1937, Cunningham petitioned, wrote, and interviewed federal and state premiers, treasurers, and ministers and directors of education persistently and with varied success.

There were three main difficulties. The Commonwealth Government had to be persuaded to contribute; the Victorian Minister of Education had not been present at the 1937 AEC meeting and Victoria, unlike the other States, was therefore not committed to the resolution; and the total amount of governmental contribution and the amounts to be provided by each State had not yet been determined.

A letter was immediately sent to the Prime Minister asking for federal government support, and in due course a predictable reply was received that, as education was a state function, it was not appropriate for the Commonwealth to make a contribution.[22]

---

[21] Minutes of the second meeting, 21–22 May 1937, Appendix A, Australian Education Council (AEC) records.

[22] F. Strahan to F. Tate, 20 November 1937, Australian archives, Prime Minister's

Tate and Cunningham had an interview with the Victorian Minister of Education who argued that his government could not very well pay money to an organization on which it was not represented, but he agreed to put their case to the state treasurer who duly regretted that he could not enter into a definite commitment 'at this stage'.[23]

By 1939 a definite allocation had been worked out for the Commonwealth Government and the States. The total sum was to be the same amount that the Carnegie grant had been, the Commonwealth to pay half, and the States the other half, each in proportion to the size of its population, viz:

Commonwealth	£3750
New South Wales	£1480
Victoria	£1040
Queensland	£ 530
South Australia	£ 330
Western Australia	£ 240
Tasmania	£ 130
Total	£7500

The directors of education conference took the matter up again in 1938 and recommended support for the ACER.[24] All the States, except Victoria and Western Australia, had in 1938 agreed to pay their share and had formally put the money on their estimates. There was, however, among most of them an informal feeling, though it was not raised at the 1937 meeting, that the money should not be paid unless all States entered the agreement.

In 1939 Western Australia agreed to co-operate. The only non-co-operative State, therefore, was, ironically, Victoria where the ACER's headquarters were situated. In a further effort at persuasion after Tate's death, the new president, Lovell, and Cunningham once more saw the Victorian Minister of Education. To meet what ap-

---

Department, correspondence file No.340/1/1, Education, Australian Council for Educational Research.

[23] Secretary, Education Department to F. Tate, 25 August 1938, ACER archives, series 2, vol.114.

[24] Summary of proceedings of the twelfth conference, 1938, p.27, Directors of Education Conference records.

L

peared to be his principal objection, they had the constitution changed at the 1939 annual meeting to provide for an additional member to be elected to the Council to represent the States which contributed to the Council's funds. Lovell did not warm to the Minister, a somewhat old-fashioned medical practitioner with little sympathy for psychology, and the interview did not go smoothly. Subsequently the Minister reported that he had submitted the ACER's proposal to the State Cabinet which decided that 'at the present time' no action would be taken.[25] Lovell in vain protested in a letter sent to several Victorian newspapers, and there was some small and unavailing debate on the matter in the Victorian Parliament. The procedure was repeated in 1941. On this occasion, Cunningham pointed out that all the other States had been waiting for three years for Victoria to come into line and could not be expected indefinitely to place money fruitlessly on their estimates. The Victorian response was again the same temporizing negative.

Meanwhile, at the request of the ACER's executive, the Carnegie Corporation agreed to continue, from the beginning of 1940, to make a grant for three years at half the rate of the previous grant, in the hope that, by the end of that period, local government support would have been secured. The States were unwilling to waive the condition that all or none would contribute, except Western Australia which sent to the ACER a cheque for £250 for the 1938–39 financial year. This was the first payment by an Australian government for the upkeep of the ACER. The other States, however, did not respond to the Western Australian challenge, and Western Australia did not renew its gesture.

In 1940, at the directors of education conference, Cunningham made a strenuous effort to get firm and concrete support from the directors. In a letter to the chairman of the conference he suggested that, if the States could not give the ACER the full financial support asked for, they might consider reducing their grant by half and pay the salaries of the teachers which they seconded from time to time to the ACER for training in research. That level of payment would not enable the ACER to build up its reserve to the desired point where it was large enough to make the institution independent of outside grants, but it would at least enable them to keep the existing reserve intact. In his reply the chairman wrote:

---

[25] J. Harris to H.T. Lovell, 23 August 1939, ACER archives, series 2, vol. 114.

> I hate to throw cold water on a good thing, but I feel that as long as Victoria holds out it will give some of the States an opportunity of which they will not be slow to avail themselves. At the same time, it is well worth trying.

He put the ACER's case to the conference with success. The directors recommended that 'the States should give full support, on a population basis, as asked for by the Council'. They added, as earlier, the need for the ACER to maintain closer liaison with the various States. They did not favour their paying the salary of persons seconded by them for employment by the ACER, pointedly referring to them not as trainees but as employees of the ACER.[26]

At the 1943 meeting of the AEC, the proposal to reaffirm the 1937 resolution led to an extensive review of the ACER's position. Two of the directors, attending with their ministers, were highly critical. Little, from Western Australia, complained:

> So far as we are concerned, the ACER operates in a remote and irresponsible way and it does not carry any new ideas directly into our schools, except by chance. Our representative attends meetings of the Council, and on his return to the State, he speaks in a loose way of what has been achieved. We hear of research being carried out, but there is no transmission of its results into our schools. I would like to know to what extent, if any, the teaching practices in other States have been affected by the work of the ACER.

Edwards, from Queensland, supported Little's remarks:

> I also would like research made into practical problems. As far as I know, research has been made into one subject only in Queensland, but I do not know the result.

The other ministers and directors, however, gave strong support to the ACER, and the motion was carried reaffirming the resolution of 1937 and recommending 'to the State and Commonwealth Governments that they reconsider the question of providing support for the ACER'.[27] It was clear from the reiteration of these resolutions of good intentions that there was much goodwill among the States towards the ACER but no immediate financial support.

---

[26] Thirteenth conference, 1940, agenda papers and resolutions, Directors of Education Conference records.

[27] Minutes of conference, May 1943, pp.68 – 70, AEC records.

It was the ACER's involvement in the war effort and its consequential connection with the Commonwealth Government that finally led to success. The ACER's efforts to gain federal support had begun immediately after the 1937 meeting of the AEC. Tate and Cunningham jointly wrote to the then Prime Minister, J.A. Lyons, drawing attention to the AEC's resolution to support the ACER, outlining its work and financial position, and pointing out that both the USA and South Africa had similar educational research bureaux that were maintained by the government. They suggested that the Commonwealth join with the States 'in providing for each of ten years the sum of £7500 for the maintenance of the work of the Council'. The Treasury, however, was not well disposed. Its secretary pointed out that the Commonwealth had recently resisted strong representations for financial assistance to the States for educational purposes on the ground that this is purely a state function.

> The Australian Council for Educational Research, although not a state government activity appears to be a valuable adjunct to the education departments of the various States. For this reason the Treasurer is of the opinion that if there is any justification for a government subsidy to the Council . . . this is a matter in which the State Governments should assume full responsibility.
>
> The Treasurer's view is that it is undesirable that the Commonwealth should commence to subsidize educational institutions.[28]

In March 1938, Tate and Cunningham repeated their request and had an interview with Lyons on the matter. The Tasmanian Director of Education, G.V. Brooks, a Carnegie grantee and supporter of the ACER, joined in the campaign and pointed out to the Prime Minister, his fellow Tasmanian, that the ACER's work had been 'of extreme value to education generally in Australia and particularly to the State of Tasmania'. The matter remained under consideration by the Treasury for 12 months. The Prime Minister meanwhile wrote to the president of the Carnegie Corporation a letter of thanks and appreciation from the people of Australia for the contributions that had made the work of the ACER possible. The Treasurer still remained unmoved. 'A principle is involved', the secretary to the Treasury reiterated, 'namely, that it is undesirable that the Commonwealth should subsidize educational institutions.' The Prime Minister, accordingly, wrote to Tate early in 1939 turning down his request.[29]

---

[28] F. Tate to J.A. Lyons, 13 September 1937; F. Tate and K.S. Cunningham to J.A. Lyons, 14 September 1937; note from Assistant Secretary, Department of the Treasury to the Secretary, Prime Minister's Department, 5 November 1937; letter of F. Strahan to F. Tate, 20 November 1937, Australian archives, loc. cit.

In May 1939, Cunningham wrote to congratulate R.G. Menzies on becoming Prime Minister and to request ten minutes of his time when he was in Melbourne. Menzies agreed but no interview ever took place. Tate, in one of his last activities for the ACER before he died, wrote in June 1939 to the Prime Minister asking for support and enclosing a long statement on the work and finances of the ACER and a number of supportive statements from members of his own party and the leader of the opposition. Menzies promised to consider the matter, and mentioned unhopefully that current defence expenses were heavy.[30]

In October 1941 the Labor Party came to power. Cunningham wrote to congratulate J.J. Curtin on becoming Prime Minister and the routine began again—a detailed analysis of the ACER's work and financial position, a request for an interview which never took place, and follow-up letters from the ACER. The war, however, made a difference to the tone and content of the letters. Cunningham's correspondence with the Prime Minister for the next two years was mainly concerned not with support for the ACER but with two other important matters, the efficient use of psychological and educational resources in the war effort, and the need for thought about the role the Commonwealth would play in educational reconstruction after the war. Cunningham in a letter of 18 October 1943 argued for some single authority that would make a study of Australia-wide post-war problems and enable the federal government 'to formulate and to announce its future intentions with respect to education'.[31]

---

[29] F. Tate and K.S. Cunningham to J.A. Lyons, 1 March 1938 and 30 November 1938; G.V. Brooks to J.A. Lyons, 1 December 1938; J.A. Lyons to F.P. Keppel, 22 December 1938; J.A. Lyons to F. Tate, 15 February 1939; Treasury minute to Prime Minister's Department, 27 January 1939, Australian archives, loc. cit.

[30] K.S. Cunningham to R.G. Menzies, 2 May 1939; R.G. Menzies to K.S. Cunningham, 10 May 1939; F. Tate to R.G. Menzies, 19 June 1939; R.G. Menzies to K.S. Cunningham, 23 June 1939, Australian archives, loc. cit.

During this period the ACER had become extensively involved in the war effort and had built up extensive connections with several wartime federal government departments, especially the Department of Labour and National Service. No charge was made for these services; but, in recognition of the work on aptitude tests for defence and repatriation training, the Department of Labour and National Service made a grant of £1000 to support the work of the ACER for the financial year 1942–43. This was the first federal grant to the ACER and the forerunner of its permanent support.

In April 1943, Lovell and Cunningham interviewed the federal Treasurer, and in June the decision of the AEC was sent by the conference secretary to the Prime Minister and to the minister for education in each State with a statement of the contribution expected from each government. The Minister for War Organization of Industry also made representations on behalf of the ACER, and in July the secretary to the federal Treasury approved a further grant of £2500 for the six months period up to 31 December 1943. The assistant secretary wrote on 4 August 1943:

> It has been decided to provide for this expenditure under Other War Services, Prime Minister's Department, Division 130C – Miscellaneous – Item 4: Australian Council for Educational Research – Grant for services in connection with problems of defence and repatriation training and reconstruction.

The conference secretary and the Director of the ACER were informed of the grant by the Prime Minister's Department. A week later, news was received that the Victorian Cabinet had decided 'not to approve of the proposal to make a grant towards the support of the Australian Council for Educational Research'.[32]

---

[31] K.S. Cunningham to J.J. Curtin, 16 October 1941, 10 November 1941 and J.J. Curtin to K.S. Cunningham, 23 October 1941, Australian archives, loc. cit.; K.S. Cunningham to J.J. Curtin, 18 October 1943, ACER archives, series 6, vol. 110.

[32] J. Laird, Secretary, AEC, to J.J. Curtin, Prime Minister, 9 June 1943 and 25 June 1943; F. Strahan, Secretary, Prime Minister's Department to H. Laird, 5 August 1943; D.H.H. Lalor, Secretary, Victorian Education Department, to H. Laird, 13 August 1943; memos of Treasury to Prime Minister's Department, 4 August 1943, 12 August 1943, Australian archives, loc. cit.

Two things still remained to be done. The federal government grant had to be put on a permanent footing, and the States had still to be persuaded to make the contributions most of them had agreed to in the past.

In December 1943, the Treasurer agreed to refer the question of the continuance of the grant to an inter-departmental committee which had been set up to consider various aspects of education in which the Commonwealth had become interested as a result of the war. The Walker committee, as it was named after its chairman, E.R. Walker, then Deputy Director-General of War Organization of Industry, made a special report on the ACER case. Up till that point, the federal moneys had been granted to the ACER not on the basis of its contribution to Australian education but as a result of its services to the Australian war effort and its potential service to post-war rehabilitation and reconstruction. The Walker committee was inclined to take a slightly broader view of the ACER's usefulness without being specific on the matter. It recommended that £2500 be paid to the ACER as a continuation of the grant at the rate of £5000 per annum until the end of the current financial year on 30 June 1944, and that the future policy of the Commonwealth should be considered in the light of a fuller investigation by the committee of the ACER's financial position, its relations with state governments, and its constitution and activities. The Treasury accordingly made a further grant of £2500 to the ACER. The Treasurer continued the grant of £5000 per annum until the end of 1945 in order that the ACER 'should be given one last chance to settle its finances so far as the States were concerned and 31st December 1945 was set as the dead line'. Thereafter the Commonwealth was prepared to match the state grants up to £3750 provided that all the States agreed to contribute.[33]

At that point the States introduced a complication. The AEC, which for some time had been interested in establishing more substantial machinery for its conference, resolved at its meeting in 1945 to set up a permanent secretariat, an Interstate Bureau of Education, which would collate and promote the exchange of information between States, act as the executive of the AEC, and conduct educational research as required by the ministers for education. A research officer in each state education department was to be appointed to work closely with the Bureau. In the same year, 1945, the Commonwealth Government established a Commonwealth Office of Education with functions overlapping in part those of the proposed bureau.

---

[33] Inter-departmental Committee on Commonwealth Educational Activities (Walker committee), special report on request from Australian Council for Educational Research for continuation of Commonwealth Grant; J. Brophy, Assistant Secretary, to the Treasurer 14 December 1943; H.J. Goodes, Assistant Secretary, Treasury to Secretary, Universities Commission 17 August 1945; H.J. Goodes to the Director, Office of Education, 27 June 1946, Australian archives, loc. cit.

Some of the directors of education, notably Little of Western Australia, saw the ACER as a rival to the Bureau, and were reluctant to support a grant from their States for the ACER. In 1945, the long-lived Country Party government in Victoria, that had held out for eight years against making a contribution to the ACER, lost office. Its Labor Party successor, after a short caretaker government, agreed in February 1946 to pay its quota to the ACER for a three-year period. Tasmania paid its £130 without waiting for the other States to pay, and Queensland compromised by agreeing to pay when two other States contributed. By the end of 1945, the Commonwealth's deadline, Tasmania, Victoria, and Queensland had actually paid their quota or were about to. New South Wales, South Australia, and Western Australia had made no move and appear to have been a little mesmerized by the prospect of the Bureau.

The directors at their conference in 1946, however, had by then become unenthusiastic about the Bureau in view of the establishment of the Commonwealth Office of Education. The concept was shelved by the AEC but lingered on, and was raised again at the AEC meetings in 1948 and 1952 and was eventually brought into being in a small way in 1960.

The proposal for a Bureau prolonged the lean years for the ACER's finances. As all the States had not agreed to pay by the beginning of 1946, the payments by the Commonwealth were not continued for the second half of the financial year up to June 1946. The ACER had to exist, therefore, on the payments made by four of the States, the interest on its endowment fund, and revenue from sales.[34]

[34] R.C. Mills, Director, Office of Education, to Secretary, Department of the

A new financial era for the ACER started in July 1946. 'It is', wrote Cunningham, 'a great satisfaction to be able to report that the problem of financial support appears to be solved.'[35] One by one, the three more reluctant States, New South Wales, South Australia, and Western Australia agreed by September 1946 to pay their contribution for the 1946–47 financial year. The Commonwealth therefore contributed its half, £3750, and agreed to continue until 30 June 1948 and then take stock of its position. In 1948 the grant was renewed without difficulty at the same rate for a further three years to 1951.[36] The ACER, therefore, in 1946 and for some subsequent years received £7500 from government grants, the same amount that the Carnegie Corporation had paid each year in its initial ten years. The Council, however, was no longer able to benefit from the exchange rate on American dollars, and could not build up its reserve fund as freely as it had in the 1930s. In fact, the reserve henceforth dwindled slightly as calls were made on it to meet occasional excesses of expenditure over income.

The accompanying table illustrates the fluctuations in ACER income during the war years. The final payment of the full Carnegie grant was for the year 1938–39. With the payment of a reduced

---

Treasury, 3 May 1946, Australian archives, loc. cit.; History of the Australian Education Council, AEC records.

Sixteenth conference, 1946, notes on conference (Victoria) and resolutions, p.7, Directors of Education Conference records; K.S. Cunningham to T.T. Hollway, Victorian Minister for Education, 18 April 1945; Secretary, Victorian Education Department to Director, ACER, 6 February 1946; J. Larcombe, Queensland Minister for Public Instruction to K.S. Cunningham, 17 January 1946 and 20 February 1946; R. Cosgrove, Tasmanian Premier and Minister for Education to the President, ACER, 9 October 1944 and to K.S. Cunningham, 7 December 1945, ACER archives, series 2, vol.114.

[35] Australian Council for Educational Research, *Sixteenth Annual Report 1945–1946*, Melbourne: 1946, p.11.

[36] R.J. Heffron, NSW Minister for Education to K.S. Cunningham, 13 May 1946; R.J. Rudall, SA Minister of Education to K.S. Cunningham, 6 June 1946; and J.T. Tonkin, WA Minister for Education to K.S. Cunningham, 27 September 1946, ACER archives, series 2, vol.114.

H.J. Goodes to Secretary, Prime Minister's Department, 11 September 1946; R.C. Mills to Secretary, Prime Minister's Department, 24 December 1946 and 16 March 1948; memo, Prime Minister's Department, Estimates 1947–48, Australian Council for Educational Research—Grant, 5 June 1947, Australian archives, loc. cit.

grant from the Corporation for the next three years, the ACER's income declined noticeably but not seriously through to 1941–42. The Council in those three years was still able to make savings of about £6000 per annum. In the year 1942–43, when all Carnegie grants ceased, there was a dramatic change. Income dropped from £11 841 to £4261, and the balance of income and expenditure changed by £7726 producing a deficit of £1781. This was the lowest point in the ACER's finances. Thereafter income rose a little unsteadily and the deficit ceased to be serious. Finally, for the 1946–47 financial year when the Commonwealth and all States provided their contributions in full, the ACER's income was once more back at something like its pre-war level.

Three changes, however, had taken place. First, expenditure had mounted considerably from £5427 in 1939–40 to £13 983 in 1946–47; in consequence there was a continual difficulty henceforth in balancing the Council's budget. Secondly, the government grants, though equal to the nominal amount of the Carnegie grant, were well short of the actual amount received by the ACER. From time to time these grants were renegotiated and moved steadily upward but there was no margin for savings as there had been in the 1930s. Income from the interest on investments therefore remained fairly constant at between £2000 and £3000. Thirdly, income from the sale of tests and publications increased rapidly. In 1938–39 it was £503, by 1946–47 it had increased six-fold to £3225 and was the second largest item of income. Ten years later in 1955–56 it was £33 862, three times the amount of the then government grants.

ACER Income 1938–39 to 1946–47

Year	Income £	Subsidies £	Interest £	Sales £	Balance £
1938–39	12 743	9 824[a]	2 155	503	+7 316
1939–40	10 795	7 953[b]	2 092	540	+5 797
1940–41	11 443	7 696[a]	2 478	712	+5 903
1941–42	11 841	7 723[a]	2 702	711	+5 945
1942–43	4 621	1 000[c]	2 743	833	−1 781
1943–44	8 954	5 000[c]	2 755	1 178	+770
1944–45	9 924	5 130[d]	2 610	1 767	−146
1945–46	9 247	4 530[e]	2 499	2 153	−693
1946–47	13 287	7 500[f]	2 498	3 225	−696

[a] Carncor
[b] Carncor and Western Australia
[c] Commonwealth
[d] Commonwealth and Tasmania
[e] Commonwealth and four States
[f] Commonwealth and all States

6

THE POST-WAR YEARS

The immediate post-war years were an important period for the ACER. They marked a switch away from war work back to the schools which, though not totally neglected during the war years, had certainly not been at the centre of the ACER's interest. In particular, they saw the beginning of serious work on an important curriculum survey that had lain largely dormant since it had been first requested in 1942; and they witnessed the establishment of the test division as evidence of the rapidly growing importance of the Council's test activities.

The ACER was in a very changed situation. It was no longer a small, experimental, independently financed establishment. It had become dependent on government finance, it had started to carry out research and services commissioned individually or jointly by governments, it was rapidly increasing in size to cope with its new responsibilities, and, as each of the governments set up its own research and service units, it had to adjust its activities and its policies to meet the new position. In particular, it had to work out its relationship to the recently established Commonwealth Office of Education. Fortunately, this task was not a difficult one.

Relationships with the Commonwealth Office of Education

Until 1945 when the Commonwealth Office of Education was established, the ACER had remained the only educational institution with an Australia-wide concern. It had encouraged and supported researchers in all the States, it had undertaken research on a national scale, and it had become the Australian centre of reference for overseas contacts and enquiries. The Commonwealth Office was intended to be a centre for the co-ordination of most of the federal government's interests in education. It was initially very much concerned with the rehabilitation of ex-service men and women who were undertaking university education, with relations with overseas bodies such as Unesco, and with research and surveys on Australia-wide topics.

During its first year the Director of the Commonwealth Office, R.C. Mills, met with Cunningham and the ACER's president, Medley, to discuss their mutual responsibilities. Cunningham had prepared a long list of matters to be discussed on overseas contacts, relations with Australian state education departments, subsidies for and sponsorship of research, publication policies, construction and distribution of tests, and encouragement of public interest in education. Cunningham wondered whether the ACER's constitution should be altered to make the Director of the Commonwealth Office a member. This was not done, but a representative of the Office was henceforth invited to attend the ACER's annual meetings as an observer. Several other meetings were held between the two Directors; Mills would visit Cunningham at home or in his office when he was in Melbourne, and Cunningham would drop in at the Commonwealth Office headquarters in Sydney when visiting that city. Mills and Cunningham had formed a friendship on the troopship returning from World War I and it stood the two organizations in good stead 30 years later. It was no disadvantage, also, that J.J. Pratt, one of the Office's senior members, had spent two years as a research assistant at the ACER and was the brother-in-law of W.C. Radford, the Assistant Director. Through constant contact and discussion between the main parties throughout the early years of the Office's existence, relationships between the two institutions were organized smoothly and amicably.

The Commonwealth Office became responsible for all formal inter-governmental overseas contacts in education, including the new and important educational organization, Unesco. The ACER retained its links with many overseas organizations and sent a representative to the Australian Unesco education committee. The Commonwealth Office assumed responsibility for some interstate surveys such as the project to secure uniformity in educational statistics, but it used the ACER's experience and expertise in that and other matters. The ACER's memorandum of 1940, for example, Comments and Suggestions on Educational Statistics in Australia, was revised by Keats and he was invited by the Commonwealth Office in 1947 to present it at an interstate conference. The ACER and the Commonwealth Office consulted annually on their existing and proposed research plans, and tried to ensure that there would be a minimum of overlap while each organization was fulfilling the functions for which it had been established.

It was a vital relationship for the ACER. As federal government interest in education grew, it was important that the ACER should be well regarded by federal officials, and should be seen to be developing a significant role in Australian education that was not being adequately performed by any other body. The Commonwealth Office had the responsibility for making an annual recommendation to the federal government on funding for the ACER. Because of the sensible working relationships established between them, it does not appear to have had much difficulty each year in justifying the continuance of the grant. W.H. Shepardson of the Carnegie Corporation, in a letter to Cunningham, when requesting the ACER to administer the funds the Corporation had granted to the Commonwealth Office's proposal on the adjustment of youth, aptly characterized the understanding that had been developed between the federal agency and the autonomous, though financially semi-dependent, research council:

> The excellent relations between Mills and you personally, plus the happy situation which exists between your Council and the Office of Education, insure a simple, natural, and effective collaboration.[1]

The State Institutes of Educational Research

At the back of every annual report from the first which appeared in 1931 through to the present time, there has been a short section recording the officers and activities of each of the State Institutes of Educational Research. It was evidence of an unfulfilled expectation that the Institutes would be a network of research organizations throughout Australia interacting vigorously with the ACER headquarters in Melbourne. There was always one and no more, in the capital city of each State except in the case of New South Wales. In addition to the original Institute in Sydney, another was formed in 1940 in Newcastle. It was a short-lived war casualty. In 1960 the idea of a Newcastle branch was successfully revived. The branch was established in 1966 and has remained in being to the present. Nevertheless, the rather tenuous connection that had been established in educators' minds between the Institutes and the ACER was exemplified by the enquiry from one of the founders, the Director of Education for the Newcastle area, as to whether or not the New South Wales Institute was 'in any way connected with the Council of Educational Research'![2] In 1975 the Tasmanian Institute ceased to exist, and the South Australian temporarily suspended its meetings in 1972 until it was reactivated at the end of 1977.

---

[1] R.C. Mills to K.S. Cunningham, 20 September 1945; Memorandum by K.S. Cunningham, 26 September 1945; K.S. Cunningham to R.C. Mills, 22 November 1945; R.C. Mills to K.S. Cunningham, 10 July 1946 and 28 April 1947; K.S. Cunningham to R.C. Mills, 22 August 1947. ACER archives, series 6, vol.111. W.H. Shepardson to K.S. Cunningham, 7 April 1948. ACER archives, series 42, vol.112. The nature and tone of the relationships described in these pages were confirmed by an interview with W.J. Weeden who was Mills's Assistant Director from 1946, and succeeded him as Director in 1953.

The Institutes probably reached their peak in the 1950s. By that time, there was a reasonable number of trained and enthusiastic educational research workers to organize interesting discussion programs and some research through the Institutes. Other organizations such as the Australian College of Education and the Australian Association for Research in Education had not yet been formed, and the Institutes for a while were in the position of being the only organizations designed for professional educators interested in educational research and development. At that time their representatives, one from each State Institute, had a majority of the places on the Council. They were seen as an ACER presence in each capital city and provided hospitality for the ACER's overseas visitors. They had been a useful source of advice on the grants for research that the Council had made to many individuals as a regular practice until 1947 when the grants began to dwindle and then vanish completely during the next five years.

Selected members helped to referee the ACER's numerous publications in its Educational Research Series in the 1930s and 1940s. All of them encouraged young researchers to report their work and listened patiently to their papers at their regular meetings. Some, in particular Western Australia and Tasmania, encouraged their young members to write and submit their manuscripts for publication in the Educational Research Series. Fowler and Parker from those two States took immense pains to get their authors 'to write well'.[3]

---

[2] W.A. Gelfius to R.W. Stanhope, May 1960, ACER archives, series 20, vol.185.

The Institutes had also carried out some valuable projects as educational pressure groups. The New South Wales Institute, for example, resolved in 1941:

> The Institute should undertake to influence public opinion on education by means of
> (a) radio discussions and broadcasts,
> (b) lectures,
> (c) preparation and distribution of brochures and articles on educational topics.[4]

In 1942, it put together and published a useful report on the structure of secondary education, organized several radio talks, and throughout the war years was a vigorous forum for the discussion of educational issues. Queensland drew up a report in 1946 and lobbied successfully for the establishment of a research and guidance branch in the education department.

The Council had sought advice from them on its major research programs and they had been extensive and indispensable participants in the large exercises such as the standardization projects and the curriculum survey. They had also undertaken some research but had never made it a major activity. Cunningham wrote in 1939:

> Our hope has always been that the Institutes will have an active programme of their own. This has been achieved in practically all States . . . so far as meetings and discussions are concerned. There has not been very much, however, in the way of actual investigation sponsored by the Institutes.

He listed a report on the teaching of history and one on occupational opportunities done by the Victorian Institute, a survey of intelligence, school libraries, and the teaching of arithmetic in Tasmania, and an investigation of the educational effect of 'moving picture shows', and an inquiry into delinquency in Western

---

[3] H.T. Parker to K.S. Cunningham, 12 November 1937, ACER archives, series 28, vol. 58.

[4] NSWIER, Minutes of the General Meeting, 17 October 1941.

Australia.[5] The New South Wales Institute appointed a research officer in 1941 and for several years regular reports were made of the progress of members' research. Queensland, too, had a research committee in 1953–54 which organized a survey of extra-curricular activities in secondary schools; it was followed in 1955–56 by an interesting experimental study of different methods of using school broadcasts. The research, however, of even the most active Institutes tended to be infrequent, and at no stage did they give the appearance of becoming important centres of research in Australia.

Post-war Staff

In the three years following the war, there were a number of significant new appointments to the staff of individuals who were to make considerable contributions to the future development of the ACER. In these years, W.C. Radford, S.S. Dunn, J.A. Keats, and D. Spearritt were appointed to the permanent staff, and Daphne M. Waddington and S.A. Rayner were secondments. Some of them overlapped with G.D. and Diana M. Bradshaw who both left in October 1946. Radford was Assistant Director from 1946 to 1954 and then Director till 1976; Dunn was head of the test division from 1947 to 1964 and Assistant Director from 1959 to 1966; Keats was the principal statistician from 1946 to 1955 and a member of the Council from 1971 to 1975; Spearritt, appointed in 1948 remained till 1960 and subsequently served on the Council from 1965 to the present time; Daphne Waddington (Keats) seconded from the New South Wales Department of Education for 1947–48 later became the first woman member of the Council from 1977 to the present time; Rayner seconded from the Queensland Department of Education for 1947–48 has been a member of the Council since 1966 and President from 1973 to 1979; George Bradshaw was a member of the ACER staff from 1940 to 1946 and a member of the Council from 1967 to 1975; and Diana Bradshaw seconded from the New South Wales Department of Education for 1944 to 1946 returned to the staff in 1961 and, again, from 1963 part-time and 1968 full-time to the present.

It was the beginning of a second generation of continuity in the

---

[5] K.S. Cunningham to H.M. Lushey, 27 March 1939, ACER archives, series 28, vol. 58.

M

service of the ACER. The first generation of Tate, Lovell, Mackie, and Cole was running out. Lovell alone remained, and was to continue on the Council till 1951. Cunningham was to remain until his retirement in 1954 and leave a solid impress on the new generation. His former student, C.R. McRae, also provided an important link. McRae had been associated with the ACER since its beginning but did not become a member of the Council until in 1940, on Mackie's retirement, he succeeded him as Professor of Education, head of the Sydney Teachers College, and co-opted member of the Council. McRae was to remain a Council member for the next 24 years, as an executive member from 1943 to 1960 and president for the 1959–60 year. It was the longest period of service so far recorded of any Council member. In 1954 another former member of the staff joined the Council. W. Wood who, in 1932, had been the second teacher seconded to the ACER, was a member of the Council from 1954 to 1977, initially representing the Queensland Institute of Educational Research, and subsequently becoming a vice-president.

Growth of Library Work

In 1945 the first full-time, professional librarian, Fanny M. Amor, was appointed. For the previous 15 years the library had been run in spare moments by the secretarial and research staff. Though the McColvin inquiry in 1947 reported favourably on it as an example of a specialist library, it was very small, inadequately catalogued, and poorly housed. Fanny Amor had an arts degree, a diploma of education, and some training in the library school established in Sydney under the auspices of the institute of librarians. She was succeeded three years later by Catherine F. Dwyer, with a similar academic background and training, who held the position of librarian 1948–54 and 1956–58. Throughout that period, the work of cataloguing was seriously undertaken and holdings were considerably expanded. The two principal functions of the library and librarian were the lending of books and journals and the answering of enquiries. The librarian and subsequently the library staff, which began to expand in the mid-1950s, were processors of books and periodicals and, at the same time, information officers.

One of the principal services offered by the ACER had always been that of providing answers to enquiries on educational matters and, in particular, providing information about research relevant to the subject of enquiry. From 1945 on, this began to be a function in which the librarian had an important share, and led to the development of various schemes for the storage and retrieving of information. A *List of Theses in Education and Educational Psychology Held at Australian Universities* covering the period 1919 to 1950 was prepared and circulated in 1952, and a list of periodicals in *Education, Psychology and Related Subjects in Melbourne Libraries* appeared two years later.

In 1956 the librarian proposed a more substantial reference tool, a quarterly *Australian Education Index* and in 1957 the work was started. Frances McPherson (Amor) returned part-time and collaborated with Catherine Gigante (Dwyer) on the project. The first issue was a specimen volume sent free to libraries and interested educators throughout Australia, and comment was invited on it. There was sufficient encouragement for the project to continue. In its early years entries were compiled by many librarians in each State; in 1960 there were as many as 24 collaborators, but by the early 1970s the *Australian Education Index* had become entirely an ACER project. It was initially modelled on Wilson's *Education Index* published in New York, and used Library of Congress subject headings. The range gradually expanded to take in books, monographs, journals, research reports, conference papers, theses, newspaper articles, book reviews, legislation, and parliamentary debates, published in Australia, and overseas books and articles by Australians or on Australian education. In 1979, through the interest of the librarian, Margaret Findlay, ERIC descriptors replaced Library of Congress subject headings, and a new format made the *Australian Education Index* suitable for computer search.

Establishment of the Test Division

The years 1945 to 1947 were the period in which the test services of the ACER were made into a test division separate from the rest of its activities. From the beginning the development and distribution of tests had been an important part of the ACER's work. By the end of the 1930s it had started to become a regular activity. 'Indeed', the Director wrote in 1939, 'the meeting of orders for tests had become one of the major operations of the Council.'[6] It was an order for 60 000 Otis intelligence tests from the New South Wales Department of Education in 1937, and a further commission from the same department in 1938 to the ACER to construct a group intelligence test for use with the sixth class at the primary final examination, that launched the ACER on a career as a large-scale supplier of tests.[7] In 1938 the ACER, which had previously distributed its tests at a financial loss through Melbourne University Press, decided to take over the distribution itself and, while keeping the sale price close to the cost of production, managed nevertheless to make a small profit. The New South Wales Department of Education and Public Service Board became regular annual customers and the Victorian Education Department, in 1945, joined in the yearly demand for selective tests. The ACER's concentrated wartime experience in test construction and distribution confirmed the growing trend.

In 1944 Cunningham suggested to the Council in a memorandum that the side of the ACER's work concerned with the construction and use of standardized tests should be partially separated from the rest of its activities. The ACER, he contended, had become so generally recognized as a centre for test construction that it was able to find little time and opportunity to do anything else. He regarded the test programs as important, but thought that they were best conducted by a separate staff that could be added to as needed without impinging on the rest of the ACER's work. He further suggested, as a natural corollary to separation, that the cost of the test division's expansion might well be met by increased test sales, the long-range implication being that the test division should become self-supporting. The Council agreed to Cunningham's suggestion. By 1945 it was able to rearrange accommodation so as to provide a separate area for the test activities, and to organize a separate accounting system for them.

---

[6] Australian Council for Educational Research, *Ninth Annual Report 1938–1939*, Melbourne: 1939, p.37.

[7] New South Wales Department of Education, Stores Branch order no.776, 10 September 1937; B.C. Harkness to K.S. Cunningham, 1 June 1938 and 10 June 1938; K.S. Cunningham to B.C. Harkness, 6 September 1938, ACER archives, series 9, vol.52. The orders resulted largely from the interest in more efficient testing and placement that H.S. Wyndham, then a research officer, had been stimulating in the New South Wales Department of Education, and were part of the program abolishing the primary final examination in 1938.

At the beginning of 1947 S.S. Dunn, who early in the war had been seconded from the South Australian Education Department, returned to the new position of officer in charge of the test division. Dunn had been brought up in a country area of South Australia. He left high school during the depression of the 1930s to get a variety of unskilled jobs, and eventually joined the education department as a junior teacher. He started a university course and was seconded to the ACER in 1941. He stayed for three years, took part in the ACER's wartime testing activities, and continued with his university studies. Cunningham and Dunn had a strong regard for each other which was reinforced when Dunn was appointed to a permanent post at the ACER in 1947. He became Assistant Director in 1959. Dunn was an ebullient character with considerable drive, energy, and entrepreneurial skill. Under him the test division prospered. In his first year, sales increased from 600 000 to 800 000 copies, prices were raised, a quarterly bulletin *The ACER Test News* was issued, and steps were taken to increase the range and number of tests from both Australian and overseas sources. It was intended that the test division should expand with the demand for its services; Dunn ensured that the demand was forthcoming.

A significant move was taken in October 1947 by the new test division in calling together the first Test Users Conference. It was attended by 20 people from state education departments, guidance and employment services, the Commonwealth Office of Education, Army Psychology Service, the Institute of Industrial Management, an independent school, and the ACER. The conference members made their needs and preferences known, stated their probable future requirements, and pointed out that some of the available tests already needed renorming. Studies into the validity of tests, more training for teachers in the use of tests, and the standardization of instructions for the administration of tests were other suggestions that arose and were agreed on.[8]

The conference was the basis for the preparation of a paper on the future development of the test division. The existing staff, it was clear, could not meet the probable demand for the construction of new tests and the renorming of old ones, and also maintain existing commitments. The basic principles behind the proposals for future development were that the selling of tests should not overshadow but rather contribute to research aimed at the improvement of tests, that a discount on the price of tests should be given to federal and state governments because of the general grant made by them to the ACER, and that prices should be kept low to schools to encourage them to use tests. Any rapid expansion would need a solid capital fund to cope with initial construction expenses which would be recouped by subsequent sales, but a careful accounting system would be needed to help estimate the proportion of the Council's income that would have to be invested. The memo rashly prophesied:

---

[8] Conference of Test Users, 30–31 October 1947, summary report, ACER archives, series 49, vol.158.

> It seems quite improbable that proceeds from sales, however much they expand, could be large enough not only to meet overhead costs but to cover the cost of the necessary research as well.

The memo proposed that, initially, a sum of approximately one fifth of the Council's income should be allocated each year to the test division to cover the cost of its research, that the test division should pay proportionally for the common Council facilities that it used, that £5000 credit be made available as a development grant and the test division would pay interest on the amount it withdrew, that the staff should be expanded without delay, and that the test division should organize its activities and costing procedures to ensure that it did not run at a loss.[9]

The Council accepted the proposals and the test division formally began its semi-autonomous career. During the next five years its income from sales and services rose from £2615 to £14 571, and in the 1950–51 financial year the division showed a profit for the first time. In that period the division was in a doubly precarious position. The inflationary condition of the Australian economy caused expenses to escalate while the ACER was trying to hold its prices down to stimulate more custom for its tests. Then, too, the division was very dependent on one group of customers. Half its sales income came from New South Wales users, and just over one-third from the New South Wales Department of Education. A slight change in policy in that State could have a drastic effect on the prosperity of the division. It managed to maintain and increase its profit in the first half of the 1950s, only to become a victim of the country's general monetary inflation and a decrease in demand from New South Wales in the second half. By the early 1960s, largely because of its involvement in an extensive and continuing program of basic skills testing in New South Wales, it had again begun to show a handsome profit.

---

[9] Proposals for development of test division, November 1947, ACER archives, series 49, item 158.

In its first five years, it constructed and standardized junior and intermediate verbal and non-verbal intelligence tests, endeavoured to establish the degree of equivalence between them and the Otis Intermediate tests, and prepared a number of special tests of general ability for the New South Wales Public Service Board and the Victorian Education Department. It prepared norms and a manual for achievement tests in reading, English usage, spelling, and arithmetic that had been constructed for the curriculum survey recently completed, produced a manual for the French test recently constructed with ACER help by S.W. Cohen, and published a Civic Vocabulary Test for which S.A. Rayner had been responsible. Many of the tests prepared during the war had inadequate norms. When national service was re-established, the ACER was able to take the opportunity in 1952–53 to norm a number of tests it had available for adults, against which others could also be normed, on 18-year-old trainees in various locations in Victoria. By the mid-1950s, the ACER's test norms were up to date. With the help of other agencies, it also prepared and conducted trial tests of a number of aptitude tests in mechanical reasoning and in reading readiness for which there was, in that post-war period, a developing interest among Australian educators. It adapted for Australian users about 20 overseas tests of various kinds, and it built up and catalogued the major test library in Australia of about 1400 different tests.

In 1951 a second Conference of Test Users was organized at which advice was received on the presentation of test results, the need for more practice items with tests, time-limits, methods of scoring, and the effects of coaching. Priorities for future test construction were also suggested: a lower primary level group intelligence test, a secondary level non-verbal intelligence test, and readiness tests in reading and number were the most sought after by the current users.[10]

Advice was also received from F.M. Lord of the Educational Testing Service (ETS) in the USA, who spent about two months at the ACER early in 1952 and gave the test division the benefit of his experience in test theory and construction. Lord was accompanied for part of the time by H. Chauncey, President of the ETS, who let Cunningham and Dunn know that they had found that selling testing programs was a better commercial venture and perhaps a better professional approach than selling tests separately.[11] The effort to follow that advice, which accorded with the views they had already formed, was to lead to an important and lucrative innovation in educational testing with the development of the New South Wales Basic Skills Testing Program. But it was to be another ten years before it was put into practice.

A memorandum in 1953 summed up the work of the test division at that time and, in fact, for the whole of its first 15 years.

> At present in this field, the ACER constructs new tests (either for general or for the special use of some department or organization), works on old tests to improve them, imports overseas tests, publishes tests by other Australian workers, controls the issue of particular tests to ensure their correct use, gives an extensive advisory service to test users, gives assistance to research workers and test makers, provides the principal Australian workers in the field with an up-to-date information service about new tests and other developments in Australia and overseas.[12]

Research on Test Theory

The finest example of research on test theory in the early post-war years was that done by J.A. Keats, the statistician at the ACER, who published a small monograph, *A Statistical Theory of Objective Test Scores* in October 1951. Keats organized the data from the curriculum survey and the standardization of several intelligence tests, and was interested in studying the distribution of the scores on the various tests. His aim was to produce a mathematical model for a distribution of true scores. Existing models, he argued, were questionable, and some of the common statistical procedures that were used in connection with them, in constructing and standardizing tests, were probably invalid. He pointed out that the normal curve, commonly used as the model for the distribution of test scores, was an adequate representation when there was negligible correlation between the items of the test. Current methods of constructing intelligence and some other tests, however, were designed to increase the correlation between items. In the standardizing of these tests, the type of frequency distribution which Keats found to be most common was described by him as the beta function. It was a modified binomial distribution, a model whose properties he proceeded to explore in his monograph and apply to the distribution of scores in several ACER tests.

---

[10] Conference of Test Users, August 1951, ACER archives, series 54, item 332.

[11] Report of the officer in charge of test division, July 1952, ACER archives, series 54, item 333.

[12] Synopsis of memorandum on ACER services to education departments in test construction and distribution, June 1953, ACER archives, series 49, item 158.

Keats subsequently worked with Lord while proceeding to a doctorate at Princeton University; and he and Lord further pursued this problem of estimating true measurements from fallible measurements in a series of papers during the early 1960s. Keats's 1951 monograph was one of the most thoughtful pieces of work produced at the ACER. It did not make a great stir and had little immediate follow-up; yet, although it had a limited distribution, it was recognized by fellow psychometricians as a contribution of note, and it was one of the few ventures by the ACER staff into theoretical research.

Curriculum Survey

The ACER tried with reasonable effectiveness to keep in touch with the directors of education in each of the States and from time to time was in communication with the combined directors at their biennial conference. Most directors individually had matters on which their departments consulted or requested information from the ACER; but it was unusual for the group of directors to make a combined request.

At their 1942 conference, the directors resolved

> that the ACER be asked to enquire into and report on the relative extent and difficulty of curricula and examinations in each of the

> Australian States in respect to children aged 11+, 12+, 13+, and 14+.[13]

This was the beginning of what came to be known as the curriculum survey. To some extent it was a repetition and extension of the work done in the early 1930s on the Australia-wide standardization of arithmetic and reading tests, and it was the forerunner of a series of Queensland studies and of the subsequent national survey of literacy and numeracy in the 1970s.

During the remaining three years of World War II, little work was done on the project. A serious beginning was made in 1945, interim reports were made in 1948 and 1949, and a final report was eventually presented to the directors in 1950. A summary of the project and its results was made by Radford and was published in 1951 under the title, *English and Arithmetic for the Australian Child*. A series of nine pamphlets followed in 1952 dealing with aspects of primary education that appeared from the survey to need discussion throughout the teaching profession.

Preliminary to the survey, it was necessary to define its aims carefully, to devise a battery of appropriate tests, and to select the children in the sample to be tested. The directors conference in March 1946 agreed to restrict the survey to a study of arithmetic and English, to the testing of children aged 10.0 to 12.11 years, and to seek answers to two questions: whether children of the same age do the same work in the schools of the various States, and whether children of the same age and ability reach the same levels of attainment. The ACER added one further question: whether children in the same school grades in each State had the same levels of attainment. Throughout 1946 much of the effort of the ACER staff was put into drawing up an appropriate nationwide sample, communicating with the selected schools and developing the tests. Eventually there were 34 238 children tested in 587 schools. Fifteen tests were devised: an arithmetic test in six parts similar to the tests standardized in 1931, seven in aspects of English—two in reading and one each in spelling, word usage, sentence construction, vocabulary, and composition—one in handwriting, and one of general intelligence.

---

[13] Minutes of fourteenth conference, 1942, Directors of Education Conference records.

The tests were administered on 13–27 October 1946. The teachers marked the test papers and sent to the ACER a random sample of papers for checking together with the result sheets. Many members of the Institutes were also considerably involved in the marking. The tests with norms became available for sale and distribution by the end of 1946, but the manuals did not become available till 1950. They sold widely throughout the 1950s when they were an important segment of the test division's wares, and some have continued in demand up to the present time, more than 30 years after their original construction.

After the tests were administered and results collected, questionnaires were sent to 580 schools seeking information about methods of teaching and time allotments for the various subjects. The response was disappointing. There was much complaint about the lengthiness of the questionnaire, and, even after the time limit had been extended to 1 September 1948, only a 33 per cent response was obtained.

The analysis of results concentrated on pupils aged 10 to 12 years 11 months in primary school Grades 4, 5, and 6 (New South Wales, Victoria, South Australia and Tasmania), and 3, 4, 5, (Queensland, and Western Australia). Interim reports were made to the directors in 1948 and 1949 and a final report in April 1950.

To the three basic questions the answers were uniformly No! *English and Arithmetic for the Australian Child* began with the summary:

Question	Do children of ages 10, 11, and 12 in the six States of Australia study comparable courses in English and arithmetic?
Answer	No. There is great variation in what is expected of children of these ages in the various States.
Question	Is there a 'reasonable' or 'generally agreed upon' course of study in these subjects for children of these ages?
Answer	There is no 'generally agreed upon' course, and there is so much variation between the courses of different States that, if one of them is a 'reasonable' course, most of the others must be 'unreasonable'.
Question	Have children of these ages comparable attainments

in these subjects in the various States?

Answer No. There are striking variations in the levels of performance of children in comparable grades, and of comparable ages.[14]

In respect of the first question on the comparability of courses, it was found that, in each area under examination, though there were broad similarities among the various States there were considerable differences in the age and grade level at which topics were introduced and in the total amount of work to be covered by the pupils. In the case of spelling there were extraordinary differences; in the various spelling lists used by the various States there were 5600 different words of which only 700 were common to all the lists.

On the matter of whether the available courses could be described as reasonable ones, the survey cast some doubt on the relevance and utility of some of the material in the English and arithmetic courses. It pointed out also that when new syllabuses had been introduced no provision had ever been made to conduct evaluative studies on their use and impact.

The survey report introduced the concept of mastery. What level of effective mastery of basic processes was achieved by the pupils, and what level was necessary? The tests revealed a considerable range in the results. For example, for one question, 'What fraction of 36 is 9?' the percentage of 11-year-old pupils getting the correct answer, in the grade in which that type of sum was first introduced, ranged from Western Australia, the highest with 58 per cent, steadily down to New South Wales, the lowest with 19 per cent. 'The enormous amount of failure'[15] represented by this and other tables, it was pointed out, affected performance in later grades, and bred lack of interest and apathy in the pupils. Clearly, too much was being attempted too early with the kinds of teaching methods currently in use. In designing curricula, it was suggested, more attention should be paid to the inclusion and grade placement of items at a point where a reasonable level of mastery among the pupils could be expected.

---

[14] Australian Council for Educational Research, *English and Arithmetic for the Australian Child*, Melbourne: 1951, p.3.

[15] ibid., p.13.

In presenting comparisons between the States, each State was rated high, average, or low relative to the others, on each test at each of six age levels from 10 to 10.5 years upwards by six-monthly intervals to 12.6 to 12.11 years. On every test there were significant differences between the States but, with one exception, the differences did not uniformly favour any one State. The one exception was Queensland. The report stated:

> The clearest overall finding is the superiority of the Queensland children in arithmetic, but the fact that Queensland is also the weakest State in reading suggests that relatively higher performance in one subject may involve relatively lower standards in others.[16]

The finding of the performance of Queensland children in the arithmetic tests confirmed what had been recorded in the earlier standardization of arithmetic tests by the ACER in 1931. No clear relationship could be found between performance and the data gathered from the teachers' answers to their questionnaire on time allotted to each subject, the extent of the courses, or the level of difficulty of the items. The report, therefore, fell back on the idea that 'it is highly probable that there are traditions in the various States which affect the attitude of both teachers and children to the subjects'.[17] The greater importance attached to arithmetic skill in Queensland over say, South Australia, might help to account for the difference in performance in arithmetic between the two States. It was an interesting hypothesis, but one hard to sustain in view of the fact that Queensland's primary school syllabus in operation since 1930, and reprinted in 1948 during the course of the survey, firmly asserted in its introduction, 'The syllabus regards English as predominant and basic'.[18] Perhaps the teachers and inspectors were devotees of a tradition different from that of the syllabus makers.

Two other significant variations were found. There were wide differences in general ability and in performance between children in the same grade and in the same State, and therefore considerable overlap between successive grades. It was found, for example, that a number of pupils at the top of the fourth grade recorded performances on many of the tests as good as those of pupils in the top half of the seventh grade. There were also intriguing differences between schools in the same State. Even schools of the same size, in the same city, with pupils of comparable general ability showed striking differences in performance. When not equated on the intelligence test, the range of results between schools of comparable size was even more striking. Again, were the differences to be attributed to differences in tradition or esprit de corps? The report suggested that attention should be paid to social and environmental factors, and to ways in which schools might 'compensate for the relative poverty of the out-of-school environment'.[19]

---

[16] ibid., p.27.

[17] ibid., p.20.

[18] Queensland, Department of Public Instruction, *The Syllabus or Course of Instruction in Primary and Intermediate Schools*, Brisbane: 1930 (Reprinted 1948), p.viii.

The main implications drawn from the findings of the survey were summarized in the report. In developing curricula, attention should be paid to the concept of 'reasonable mastery' and an effort should be made to set out the minimum essentials to be mastered by almost all pupils. There was a need for a better understanding of the relationship between mental maturity and learning and, as a consequence, for more individual attention to pupils and a more careful age and grade placement of items in the curriculum. Much of the material in existing syllabuses appeared to be unsuitable and should be removed. In general there was an obvious need for 'an extensive programme of evaluation research, and experiment'.[20]

Parker and Radford were appointed as a sub-committee of the Council to work out the 'practical implications of the survey'.[21] They recommended the publication of a series of nine follow-up pamphlets, under the general title, *Primary School Studies*. Parker and Radford designed the series, the state directors of education gave their blessing and, in the course of 1952, the short anonymous pamphlets each with an accompanying discussion sheet were published by the ACER. They dealt with aspects of primary school teaching and organization and made reference to the findings of the survey. The authors came from education departments and teachers colleges around Australia and their efforts did not produce much excitement.[22] Initial sales were disappointing but the pamphlets continued to sell for the next few years.

---

[19] ACER, *English and Arithmetic for the Australian Child*, p.23.

[20] ibid, p.28.

[21] Council minutes: W.C. Radford to D.J.A. Verco, 5 September 1950, ACER archives, series 42, vol.129.

It is not easy to estimate the impact of the curriculum survey, which was one of the most extensive and relevant studies made by the ACER. It provided pertinent information asked for by the state education departments on a central part of their work. It drew their attention to educational ideas, just then coming into currency, such as mastery, readiness, essential learning, maturation, the influence of social and environmental factors on educational opportunity and learning, and the need for continuous evaluation and revision of school curricula. The ACER, however, did nothing to try to establish standards for mastery, and did not initiate research that might carefully document the social and environmental influences on the schools. And it was not till 25 years later, in 1977, that the first attempt was made in Australia, by K. Piper of the ACER staff, at Radford's suggestion, to establish what might be regarded as essential learning in some subject of the curriculum.[23]

In 1949 Cunningham suggested to the Council that, as a follow-up to the curriculum survey, longitudinal studies on learning readiness, on the residual results of school learning in post-school years, and on the attitudes, abilities, and interests of a representative sample of pupils, might be undertaken if the Victorian Education Department would co-operate. Nothing came of the proposal. The ACER did not manage to produce a solid plan of needed research consequential on its survey which it did not seriously regard, as it might well have done, as a first step in a substantial program of research. The survey had established the nature of the situation and had indicated the areas which needed research. The ACER was content to have done so much, and then have a group of people offer opinions, often based on existing research, about what should be done in the primary schools. The curriculum survey thus stimulated discussion but did not generate solid and continuing research.

---

[22] The pamphlets were:

1 *The Approach to Reading*, by F.J. Schonell, Professor of Education, University of Queensland.
2 *The Individual Child*, by H.T. Parker, Research Branch, Education Department, Tasmania.
3 *End and Means in Arithmetic*, by H.T. Parker.
4 *The Appraisal of Results*, by D.J.A. Verco, Research Branch, Department of Education, NSW.
5 *Highways of Expression*, by D.J. McLean, Headmaster, Darlinghurst Central School, NSW.
6 *The Purposes of Teaching*, by H.H. Penny, Principal, Adelaide Teachers College, SA.
7 *Power over Words*, by A.P. Walker, Headmaster, Forest High School, Mt Lawley, WA.
8 *Children in Groups*, by W.C. Radford, Assistant Director, ACER.
9 *Priorities in the Primary School*, by L.J. Pryor, Principal, Bendigo Teachers College, Victoria.

[23] K. Piper, *Essential Learning about Society*, Hawthorn, Vic: ACER, 1977.

It is probable that it had a general and a longer-term rather than a precise and immediate effect. There is no evidence that it had any immediate and concrete impact on school syllabuses. The New South Wales *Curriculum for Primary Schools*, for example, published in 1952 two years after the ACER had reported the results of the survey to the directors of education, made no mention of it and did not appear to have been affected by it. In Queensland, however, there was much discussion and revision of curricula throughout the 1950s, which made use of the data of the survey. In any case, whatever was done then to reform the teaching of arithmetic was doomed to be short-lived. The New Maths, being hatched overseas in the early 1950s, was to begin seriously to affect Australian thinking before the end of the decade, and to become a significant influence in the 1960s.

The survey served to strengthen views already being expressed about primary school curricula. The South Australian *Course of Instruction for Primary Schools*, for example, published during the survey in 1947 offered much the same kind of advice as the ACER report. Victoria in 1950 set up a Standing Committee for the Revision of the Primary Curriculum whose job was to ensure that curricula were kept continuously under revision, and in 1959, only seven years after its previous revision, New South Wales produced a new primary school curriculum which incorporated the language and advice of the survey report. The survey thus probably helped to bring the States' curriculum development into line with advanced contemporary thinking but did not induce either the state education departments or the ACER to seek out by research the information that would enable the ideas to be put most effectively into practice.

University Investigation

Another long drawn-out survey took place at the same time as the curriculum survey. During World War II, the science and technological facilities were declared reserved faculties from which students were not subject to call-up for military service. The ACER was asked by the University of Melbourne and the Universities Commission to test all entrants to the university in 1943 to try to determine whether a better prediction of academic success could be made by incorporating various intelligence and aptitude tests into their selection procedures. The tests were repeated in 1944 and a follow-up study of the students was made. Bradshaw was responsible for planning the project and for the initial work; Hohne who joined the staff of the ACER in 1943 was subsequently in charge of it and worked on it until he resigned in 1955.

Use of the psychological tests did not appear to increase significantly the predictive value of the selection procedures for students entering university from secondary school, but for adult matriculants, it was suggested, an aptitude and verbal intelligence test would be a useful substitute for the normal matriculation examination. The 1943–44 students were followed through to 1954. In 1951 a report on the students in the Faculty of Arts was produced, and was followed in 1955 by one on students in the scientific faculties. The principal feature of student performance that was documented in the reports was the extraordinarily high failure rate even among those highly selected students. In arts, by 1951, only 68 per cent of the 1943 entrants had graduated, and in the scientific faculties, by 1954, only 71 per cent, of whom those graduating in minimum time ranged from a low of 25 per cent in engineering to a high of 53 per cent in medicine. Subsequent reports by various authorities have provided evidence of a steady improvement in graduation rates.[24] The Hohne reports were a small and well-docu-

---

[24] Australia. Committee of Inquiry into Education and Training, *Education, Training and Employment*, (Chairman: H.P. Williams), Canberra: AGPS, 1979, vol.1, pp.192–3.
Among the first to undertake systematic research on university problems was C. Sanders. His work on the 1947 intake to the University of Western Australia was published by the ACER: C. Sanders, *Psychological and Educational Bases of Academic Performance*, (ACER Research Series No. 74), Melbourne: ACER, 1961.

N

mented section of the evidence accumulating for the first time in the 1950s about student selection and performance in Australian universities, that was part of a movement towards an extensive reappraisal of the finance and organization of universities. The movement led to the Murray Committee of 1957 and subsequently the Martin Committee of 1961–64 and through them to a widespread reorganization of tertiary education in Australia. The ACER did not play a significant role in that movement but, with the Hohne studies, it had shown, for the first time, an interest in the area of tertiary education that it was to enlarge considerably during the next 25 years.

The Adjustment of Youth

World War II had involved the ACER with the training and placement of young people, after leaving school, in industry and various forms of national service. It turned the Council's attention to a range of educational problems outside the schools. Indirectly it became involved in a further study of post-school youth In 1948 the Carnegie Corporation provided the funds for a study group of four to make a survey of the agencies and facilities through which the United Kingdom, Canada, and the USA provided guidance, education, employment, and welfare services for youth from 15 to about 20 years old. The proposal had been put forward to the Corporation by the Director of the Commonwealth Office of Education as the first part of a five-year study of problems of social adjustment beyond the period of formal schooling, and which would involve studies of further education, job adjustment, delinquency, and problems of old age. Only the first part of the program was completed. The Commonwealth Office selected the team and advised them from time to time throughout the study. The ACER was asked to administer the funds. The group spent about six months abroad in 1948–49 and found it difficult to co-operate with one another. Their task was badly planned and the group personally incompatible. On their return, Cunningham stepped in at his tactful best to chair several days of meetings of the group with the object of producing a joint report. The result was an ACER publication in 1951, *The Adjustment of Youth*, written by the members of the group, and edited, with his customary skill, by Cunningham.[25]

The volume was the first of a number of studies on adolescence, on school leavers, and on youth and employment in which the ACER was subsequently to become interested.

The Work of a Research Assistant

The life of a research assistant at this period was a busy and a varied one. In the period of his two-year secondment he might have a considerable number of small jobs and perhaps one or two principal ones. In addition he had to learn new skills for the tasks required of him, and he would probably also work for a degree in education at the University of Melbourne.

Rayner, a seconded teacher from Queensland, spent some of his time at the ACER updating Cunningham's early survey of correspondence education with some assistance from the Commonwealth Office of Education. He produced a more extensive and evaluative study, and added a section on correspondence education in New Zealand. He also completed a piece of very useful curriculum research done for his BEd degree at the University of Melbourne. He compiled a list of 41 common words significant for the understanding of current affairs. Putting them into a multiple-choice test form, he tried them out on a small sample of Year 8 children with a mean age of 13.5 years in a group of schools in a middle-class Melbourne suburb. The average score of the whole group was less than 23 points with a standard deviation of five and a half points. Rayner justly remarked on 'the prevailing ignorance of very common social concepts and factual information'.[26]

The accompanying table is an abbreviated diary of Rayner's activity at the ACER, 1947–48. His tasks ranged from test construction to survey work with a short venture into comparative education, together with two years study and research training for a university degree in education. His major jobs during this period were the development of two tests of general ability, the survey of correspondence education, and the research for his university degree—the investigation of the vocabulary of civics—and writing the reports ready for subsequent publication.

---

[25] R.C. Mills to W.H. Shepardson, Carnegie Corporation, 19 September 1947; W.H. Shepardson to R.C. Mills, 7 April 1948; K.S. Cunningham to W.H. Shepardson, 17 March 1949; and informal report on the youth adjustment survey, draft by K.S. Cunningham, April 1950, ACER archives, series 42, vol.112.

[26] S.A. Rayner, *The Special Vocabulary of Civics*, (ACER Educational Research Series No.65), Melbourne: MUP, 1951, p.68.

Research Assistant 1947–48

1947	
February	Read Lindquist, *A First Course in Statistics*
	Ross, *Measurement in Today's Schools*
	Indexed *Scottish Educational Journal*
	Sorted files of achievement tests
	Revised *A Brief Guide to Universities*
	Prepared comments on university statistics for a Commonwealth Office of Education conference
	Prepared summary of Australian university matriculation requirements
March	Work on curriculum survey
	Practice teaching for DipEd at University High School
April	Given specifications, reading, and item types for Intermediate D (Grade 6 NSW)
	Preliminary drafts administered at St Kilda State School
May	Continued work on Intermediate D—indexing—checked marking on other tests
	Estimated line of equivalence of Junior A and others
June	Read Helen Walker on statistics—indexing
	Further work on Intermediate D
July	Intermediate D (3rd trial forms), and began B47 (Public Service Test)
	Intermediate D sent to printer
August	Testing, marking, tabulating B47
	Began writing up account of preparation of Intermediate D
	Indexing
September	Seminar on school broadcasting
	Writing up B47 report
	Standardizing Intermediate D (now being prepared for general sale)

	Estimated lines of equivalence, Intermediate D and others
October	Intermediate D report.[27]
	Secretary of Conference of Test Users
November	Bulletin No.10: *Current Problems in English Education*
	Adult matriculants; curriculum survey
December	Bulletin No.10
	Work with Keats in tabulating division on curriculum survey
	Holiday in New Zealand
1948	
January–February	Tabulating division
	Collating questionnaire on *Correspondence Education*
March	Report on age-grade tables
	Statistics for *Review of Education*
April	Statistics for *Review of Education*
May	Began revising *Correspondence Education*
June	Curriculum Survey, Spelling
	Correspondence Education
July	*Correspondence Education*
	Indexing
	Helped Daphne Waddington in Grade 6 testing
August	*Correspondence Education*
	Checked Spearritt test items, B48
	Testing for BEd investigation on vocabulary of civics
September	*Correspondence Education*
	Checking university study for Hohne
	Visited Tasmania
October	*Correspondence Education* and university study
November	Item analysis, B41
	Correspondence Education and university study (factor analysis, 1943 engineers)
December	1943 engineers (regression analysis) written up
	Correspondence Education finalized

Answered miscellaneous letters in addition to the above.

---

[27] By 1980, 2 000 000 copies of Rayner's intelligence test, Intermediate D, had been sold, and it was still selling well.

Visit by H.C. Dent

In 1951, H.C. Dent, editor of the *Times Educational Supplement* and, later, a Professor of Education in the University of Leeds and London University was invited by the NEF to visit Australia on a lecturing tour, and asked by the ACER to spend an additional month to look at Australian education and write his impressions of it. It was Cunningham's intention that Dent's report would be published. Dent, who wrote most of the report on shipboard during his voyage back to England, preferred that the document be for private circulation.

The report was a short statement of not more than 9000 words, and was by far the most devastatingly critical and eminently readable of all the reports sponsored by the ACER. He began by saying 'much of what I saw in the schools perturbed and depressed me'. They were behind the times and appeared not yet to have met the basic criticisms that Cunningham had put forward in his *Critical Account* in 1936. Australian primary and secondary education as a whole seemed to have little relevance to Australian culture. He wrote at a time when new social and economic pressures were being felt throughout the Australian culture, and he was disappointed that education was not responding to them and did not seem to be in a condition to make an adequate response. Three reforms, he suggested, were necessary to the salvation of Australian education.

> Promotion of teachers by merit must supplant promotion by seniority. Teachers must become convinced that they are not only free to experiment but actively encouraged to do so . . . The stranglehold of examinations on the schools must be broken.

He pointed out that Australia's comprehensive high schools were dividing up into streams for various levels of intellectual ability just as if they were several different schools under the one roof. This was a sociological problem that seemed to have been ignored or unrecognized. The academic school or course had too much prestige, and the need for new methods and forms of education was not sufficiently recognized and encouraged. Especially was Australia lacking in technical education for the middle-level occupations in industry.

He heartily approved current moves in New South Wales and Queensland towards administrative decentralization, and at the same time argued the need for an effective federal authority to put an overall national policy into effect. 'I believe', he concluded, 'that Australian education is lagging behind that of other English-speaking countries, and that the gap is increasing.'

The report was circulated to ministers and directors of education, professors of education, and heads of teachers colleges and teachers unions. It was never published. There was a good deal of appreciative discussion of it among the senior officers of the New South Wales Department of Education. It came at a time when New South Wales was preparing for a review and reorganization of secondary education, and its outspokenness may have effectively hastened the process.[28] Elsewhere there was little reaction. T.L. Robertson, Director of Education in Western Australia suggested that Dent found what he was looking for, and Cunningham, with a surprising lack of charity and appreciation for the objectivity and perceptiveness of the report, agreed that

> he has probably in him a touch of the complacency which seems to mark most English observers. Everything, as you imply, appears to be judged by its conformity or otherwise to the English pattern.[29]

Assumptions Underlying Australian Education

R.F. Butts, Professor of Education at Teachers College, Columbia University, visited Australia from May to December 1954 as a Fulbright Scholar attached to the ACER. He was a distinguished historian of education and his task was to lecture in various centres on American education and learn what he could about Australian education. It was his first extended professional visit to any country outside the USA. His children went to school in Melbourne and he became thoroughly immersed in his study of Australian education. Towards the end of his visit, in October, Cunningham asked him to write about his reactions.[30] In the next two months before he left, he put together a short book that was to become one of the ACER's best sellers.

---

[28] Interview with H.C. Dent, London, 8 January 1979.

[29] H.C. Dent to K.S. Cunningham, 13 February 1952, and March 1952 consisting of his impressions of Australian education; K.S. Cunningham to H.C. Dent, 1 February 1951, 7 February 1952, and 23 October 1952; K.S. Cunningham to T.L. Robertson, 4 August 1952, ACER archives, series 45, vol.126 (part 3).

[30] Interview with R.F. Butts, Chicago, 28 October 1978.

What Butts successfully tried to do was 'to bring to the surface for examination some of the fundamental assumptions underlying the goals, administration, content and methods of Australian education'.[31] His book was not meant to be a general critique or a set of recommendations; it was an essay solely 'designed to promote self-examination'.[32]

He began by stating that the author's beliefs would inevitably affect his judgment, and that the reader should be on his guard against them. Then, briefly, he outlined what he believed to be his own assumptions—a reasonably progressive orientation which leaned towards the development of a democratic non-selective system offering a wide range of curricula, responsive to its culture and the community, and staffed by well-educated teachers. Having recently written a book on the separation of church and state,[33] he affirmed strongly the primacy of state provided education.

He considered that the centralized administration of schools operated on two assumptions: that a uniform policy for all schools in a state is a good thing, and a uniform policy can be achieved only when the basic decisions are made by relatively few people. He wondered whether in order to achieve equal educational opportunities for all children it was necessary to insist on uniform standards of achievement and uniform curricular policies and teaching methods. He argued for a more democratic process of decision making in which there was a wider base of discussion and involvement by those affected by the decisions. The government, the profession, and the public might all be made effective parties in the making of the kinds of educational decisions that are to serve the best interests of a democratic society. Another possible danger to democracy was the over-importance of private schools at the possible expense of the state system. He wrote:

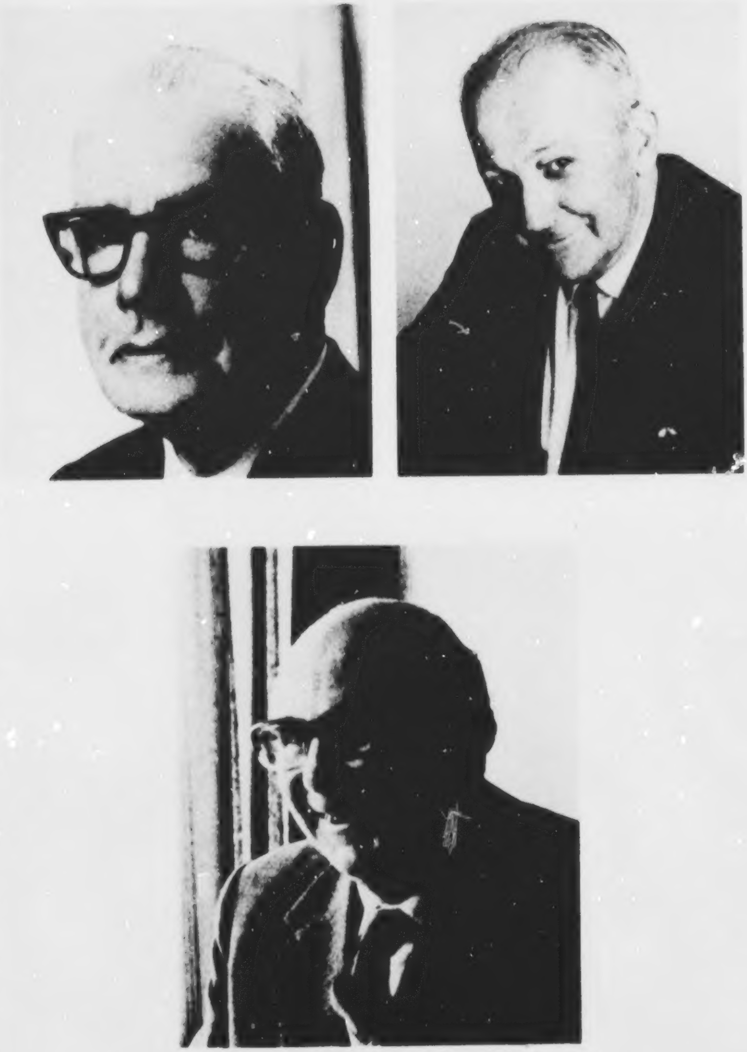
> Australia should be on guard and take warning from what has happened in such countries as Holland, Belgium, France and certain pro-

---

[31] R.F. Butts, *Assumptions Underlying Australian Education*, Melbourne: ACER, 1955, p.1.

[32] ibid., p.2.

[33] R.F. Butts, *The American Tradition in Religion and Education*, Boston: Beacon, 1950.

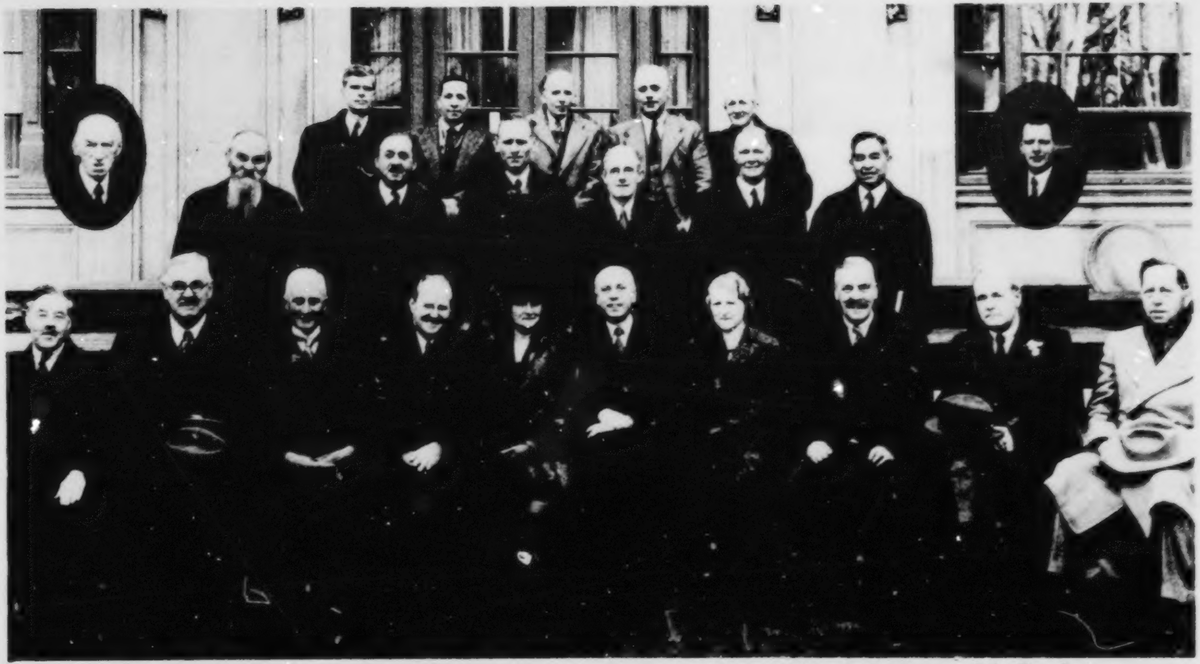


The three Directors of the ACER,
(*top left*) K.S. Cunningham, (*top right*) W.C. Radford, (*bottom*) J.P. Keeves.

The original executive of the ACER, (*top*) F. Tate, (*left*) H.T. Lovell, (*right*) A. Mackie.

Members of the staff of the ACER in the 1930s, the first two secretaries, (*top left*) Mary A. Campbell, (*top centre*) Wilma Knee, seconded staff, (*top right*) W.T. Price, (*middle and bottom left to right*) W. Wood, C.C. McShane, D.J.A. Verco, C.W. Branson, B.W. Ross, J.J. Pratt.

Frank Tate, a sketch by Arthur Lismer during the 1937 NEF Conference.

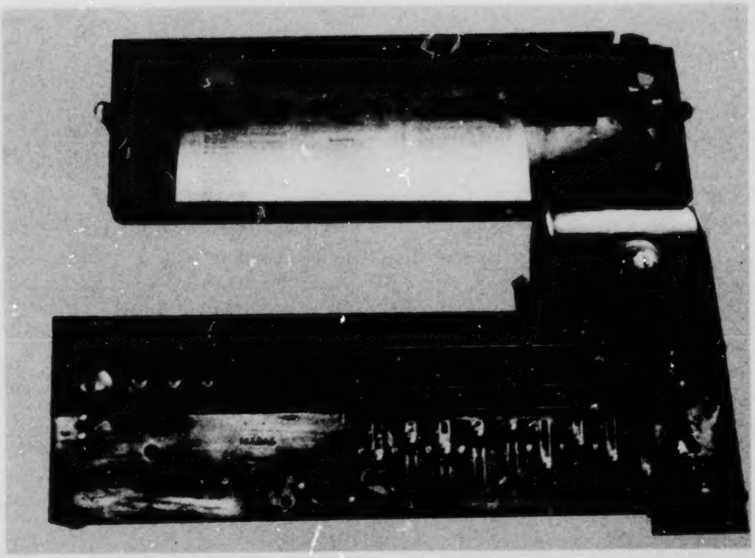


Overseas speakers in Canberra at the 1937 NEF Conference, (*top left to right*) E. de S. Brunner, P.L. Dengler, A. Lismer, F. Debenham, A. Vedel, (*middle*) P. Bovet, I.L. Kandel, E.G. Malherbe, F.C. Happold, H.R. Hamley, Y. Tsurumi, (*bottom*) W. Boyd, G.T. Hankin, E. Salter Davies, H. Rugg, Beatrice Ensor, L. Zilliacus, Susan Isaacs, C. Norwood, P. Meadon, F.W. Hart, (*inset*) F. Tate, K.S. Cunningham.

On the occasion of the conferring of the degree of Doctor of Laws *honoris causa* on W.C. Radford, Monash University, 25 May 1972, (*left to right*) S.S. Dunn, W.C. Radford, K.S. Cunningham.

Group in the workroom and library destroying confidential papers during wartime, (*left to right*) J.J. Pratt, R.R. Priestley, G.D. Bradshaw, K.S. Cunningham.

Conference on item banking in the early 1970s.



1930 and 1980, (*top*) the original Madas Peacock calculating machine used at the ACER in the 1930s, (*bottom*) Wang word-processor which was used to prepare disks for direct transfer to typesetting for this book, 1980.

> vinces of Canada where dual systems of schools have become embedded in the national life and tend to perpetuate differences that lead to political, economic, class and religious conflicts.[34]

Butts found that there was a general assumption that universal education meant six years of primary school followed by two or three more years, and that, beyond that point, increasingly rigid selection was the rule to weed out those who were thought to be unable to profit from further education. Associated with this practice there was a hierarchy of schools and subjects in which the top place was occupied by traditional academic subjects and institutions. He deplored 'the widespread subordination of the social sciences'[35], presumably on the grounds that they were inferior as intellectual disciplines and therefore more suitable for less able students, or that they might lead undesirably to the study of controversial issues, or that schools cannot really do much directly about citizenship education. These were assumptions, he thought, that should be seriously contested.

The goal of Australian primary education seemed to Butts to be 'the efficient expression of *information*'. He wrote:

> The educative process is usually subjected to three types of claims: the claims of knowledge, the claims of the needs and interests of growing and developing learners, and the claims of society. The primary schools of Australia assume that the claims of the learners and the claims of society are less important than the claims of knowledge . . . In secondary education the claims of scholarly knowledge and information are even more paramount.[36]

The teaching profession, he thought, was given security of tenure but was not really trusted to act like competent professionals. Teachers looked to central administrators for the authority upon which to base their teaching. Their work was hedged in and controlled by inspectors and external examiners to ensure efficiency, as Kandel had pointed out 17 years before. Their preparatory training was short and unadventurous. Australian teachers, in consequence, tended to be 'over-organized on matters of salary, security of tenure, but under-organized with respect to professional stimulation, exchange of ideas, and mutual criticism'.[37]

---

[34] ibid., p.22.

[35] ibid., p.37.

[36] ibid., p.50–2.

211

Butts was pleased with his book and so was Cunningham. None of his criticisms was new but he put them into a framework of basic assumptions that struck more deeply than his predecessors and provided a more solid basis for discussion. 'He penetrated', one subsequent observer wrote, 'to the educational conscience of many educators.'[38]

Butts's visit was made at a time when the reform of secondary education was being widely discussed and planned in several States. Between 1950 and 1960 the number of students enrolled in Australian secondary schools doubled. In the same period committees of inquiry into secondary education reported in Western Australia and New South Wales, and reforms were made in curriculum and organization in each of the other States. Butts's *Assumptions* was constantly in the background in all the discussions, and its analyses were reference points for many years. Its currency was greatly extended by its being used as a text in education courses in teachers colleges and universities. It was regularly reprinted up to 14 years after its publication, and almost 20 000 copies of it were sold.

It was fiercely assailed by several reviewers who thought the author did not understand the subtleties of Australian educational administration and curriculum construction. The Catholic hierarchy and press deplored 'a dangerous American trend' in favour of universal common education reflected in Butts's book.[39] The Victorian Council of Public Education at the direction of the Minister of Education devoted most of their annual meeting in 1956 to a consideration of the work. It defended the centralized system of educational administration and the existence of private schools but concurred with Butts's criticism of the hierarchy of schools and subjects. On the whole it considered the book 'both stimulating and timely', but thought that Butts, because of his background and because 'he may have had too short a sojourn in this State', did not really 'appreciate the trends shaping our policy in education'.[40] These views represented those of educational officials in all of the States. They solaced themselves with the thought that Butts did not spend much time in their particular State and that his criticisms, therefore, might not apply to their work; nevertheless they suggested that he had expressed some sound ideas that were worth serious consideration. It was a book that could not be neglected. One reviewer summed up the position nicely: 'Since the book was designed to promote self-examination among Australian educationalists, it must be said that Professor Butts has been singularly successful'.[41]

---

[37] ibid., p.79

[38] W.E. Andersen, 'To see oursels . . .'— Australian education as viewed by overseas visitors, *Australian Journal of Education*, 1966, 10(3), p.235.

[39] Report of an address by the Catholic Archbishop of Melbourne, *The Advocate* (Melbourne), 15 December 1955.

The End of the Cunningham Era

At the end of 1954 Cunningham retired after 25 years of service as Director of the ACER. The ACER was very much his creation. It owed its continued existence partly to his stubbornness and unfailing persistence but also to his own standing as a man whose opinions were valued among educators and social scientists.

The directions which the ACER's activities took were largely of his determination. He was personally interested in preparing and using tests of general ability and standardized achievement tests. He conceived that education could be placed on a scientific basis by the careful use of such tests, and he was convinced that the best service the ACER could offer was that of distributing and, where necessary, adapting and constructing, such tests. He did not have a highly original mind, and the ACER, of which he was the central figure, was not energized much to explore critical problems and to develop into a research group that would stimulate educational thinking and practice. The work of the ACER did not become systematic research in the sense that the findings of one project would lead to further investigation of the educational problems thrown up by it. The work done in the course of the test standardizations or the curriculum survey was systematically and thoroughly undertaken, and the product—the completed test with its norms, or the report on the performance of Australian children in arithmetic and English—duly appeared. The ACER's research task ended at that point. An interesting and useful range of literature for the stimulation of teachers might then be forthcoming, but little further research on the important problems and inadequacies that the projects had unearthed.

---

[40] Victoria, Council of Public Education, *Report* . . ., Melbourne: Govt Pr, 1956, p.7.

[41] 'As others see us', *Educational Magazine*, 1955, 12(7), p.329.

His other principal interest was that of opening up Australian education to the influence of the more vital ideas and practices from overseas and to the judgment of overseas educators of repute. This he carried off with considerable flair and discernment. The reports which the ACER published under his editorship were impressive and sometimes exciting documents. He himself wrote very well, and he managed to select other writers, such as Cramer, Kandel, and Butts, who, similarly talented, made a distinct impression on their readers. His conception and organization of the NEF Conference was superb. It was his biggest and most successful effort to bring Australian educators into the orbit of the more advanced thinking of contemporary Europe and America.

The ACER remained small partly because of Cunningham's caution, a trait which he shared with his executive and Council, but partly also because, until it began its wartime services to federal government departments, it had few contracts to fill from other educational authorities except for some important orders from New South Wales. It therefore did not begin to build up a permanent research staff until after the beginning of World War II. McIntyre, who left in 1940, had been apart from the Executive Officer the only pre-war permanent member of the research staff.

Cunningham was the central influence in the ACER from 1930 to 1954, but one man is seldom solely responsible for the way in which an institution develops. He operates in a context which both offers opportunity and exercises restraint. For the ACER and Cunningham the main elements in the context were the staff, the Council, the education departments with their teachers and administrators, and the current state of education and climate of educational thinking.

Over the selection of his research staff Cunningham initially did not have much control. Until the end of the war they were sent to him by the several education departments and he had little influence on the departmental choice. He was able, however, to retain seconded people, such as McIntyre and Bradshaw, beyond their secondments for permanent employment in order to give the ACER some much needed statistical sophistication which he, though he taught some educational measurement at the university, lacked at anything much more than an elementary level. In the post-war period he had more opportunity to advertise for and select the members of his slowly growing permanent staff. He also adopted from the beginning the enlightened practice of encouraging them to take further academic work in education at the University of Melbourne, and later, at overseas universities, thereby immensely strengthening the capacity of the institution. The staff affected the development of the ACER considerably. Once a project had been agreed upon by the executive and its main outlines determined, what it essentially became—what, in effect, was seen as the action of the ACER—was the responsibility of the research staff under its senior member. Cunningham's role tended to be a supervisory and editorial one, rather than one of direction and detailed decision making. During the war and subsequently with the establishment of the test division, as test construction became more varied and specialized, the test developers on the staff became involved in much of the outside consultation with clients and were largely responsible for proposing the test programs that the ACER undertook. The quality of the ACER's work and its research and service interests were then dependent on the full-time research staff rather than on the Director or the Council. The ACER to the test users of Australia in the early fifties was Dunn, Keats, Spearritt and their assistants. They were following a line that Cunningham had originally introduced and fostered, but it was on their skill, knowledge, and enthusiasm that the reputation of the ACER rested. Of great importance, too, in Cunningham's later years, was the work of Radford, the Assistant Director. Cunningham relied a great deal on his judgment and gave him substantial authority. He was the one who had the responsibility for planning and organizing with the staff almost all the research that was undertaken; and it was to him rather than to the Director that the research assistants reported and looked for advice and guidance.

Another support for and constraint on the Director's exercise of authority was the Council of the ACER and, in particular, its executive. Throughout the 1930s the dominating figure was Tate, but other Council members such as Lovell, Cole, Parker, and Cameron were not ciphers. They had ideas about what the ACER should be doing, they expressed their views with vigour, and they sometimes managed to carry the day as Cole did with his three publications on primary, secondary, and rural education. Cunningham, however, was careful always to have the ear of the Council's president and, consequently, to maintain control over the main direction of the program. When Lovell succeeded Tate in 1939, and Medley succeeded Lovell in 1948, Cunningham had no difficulty in maintaining a central and determining role in the making of the ACER's policy and program. Council and executive meetings were uneventful and sometimes infrequent. Cole, for example, complained in 1943:

> It must be the better part of a year since we had a full executive meeting in connection with the ACER, and under these conditions the practice of our Melbourne office may easily become too greatly independent of the Council.[42]

The Council, though seldom inclined to be cantankerous, from time to time had its watchdogs, Cole and Cameron in the 1930s and 1940s, Wyeth in the 1950s, and Wood and Webster in the 1960s and 1970s. The executive was a useful sounding board for Cunningham. Its three members were always men of experience and influence in Australian education. They could be relied on for well-considered advice, and Cunningham constantly availed himself of this facility. He wrote frequently to each member. He informed them of actions he had taken, asked advice on decisions he had to make, and consulted them thoroughly on appropriate aspects of the publications that he had in hand. The executive, through its experience, to some extent helped to interpret the rest of the educational world to the ACER.

An institution such as the ACER, if it was to remain viable, had to be seen to be useful by those who made decisions on educational policy in the States. Primarily, these were the educational administrators in the various head offices. They were the ACER's key clients. Cunningham in directing the ACER had to have three questions in mind.

---

[42] P.R. Cole to H.T. Lovell 23 March 1943, ACER archives, series 31, vol.40.

First, if he was to satisfy his own and his institution's aspirations, he had to ask what aspects of research and service could the ACER provide in which his own inclinations and the needs of Australian education coincided. The need was so extensive, the field so wide, and his own tastes sufficiently catholic, that he had no great difficulty in developing programs that satisfied that kind of question.

Secondly, he had to trim or to expand his views according to the capabilities and ambitions of his staff. What was the kind of project that they were capable of undertaking, would be interested in, and could complete at a high level of quality within a reasonable time? Again he had no difficulty with this question. The research programs, though sometimes complex, did not require unusual skill and, as the qualifications of his staff increased, more sophisticated research within their interest and capacity was developed.

Thirdly, he had to consider the wider context represented by his clients. What kind of program would they see some value in? Their wants, the state of their educational thinking, their openness to new ideas, their readiness to see the value of research, and their ability to understand the nature and requirements of research were constraining factors that had to be taken into account in designing the ACER's program. By and large Cunningham succeeded in satisfying his departmental clients. If they did not make very great use of the ACER, the directors at their conferences kept reiterating their belief in the value of it. Cunningham could be seen to be a very solid sort of person. He did not make radical proposals. In an effort to promote change, he did offer critical comments from time to time and sponsor foreign educators who made rash and ill-considered statements. But he did not agitate; he argued in a sensible manner. He was, in their view, sincere and completely trustworthy, and he obviously was interested in helping to improve the States' educational systems.

In the long run, Cunningham's success was achieved not by the demonstration of striking intellectual talent, research skill, or educational wisdom. He had a sufficiency of each of these but was not outstanding in any of them. Given his own professional competence and the willing support of his colleagues, the success he achieved was very largely due to two traits of character which he constantly demonstrated. He was scrupulously honest and fair-minded, and he was extraordinarily persistent – a man of integrity and determination. He was widely respected for these characteristics, and they helped to provide the ACER with a reputation for trustworthiness and reliability.

These two personal traits constantly evident in Cunningham and his work were well brought out in letters written to mark the occasion of his retirement in 1954. F.J. Schonell, then Professor of Education at the University of Queensland, wrote of him as a man 'who at all times would show absolute integrity'[43]; and the president of the Carnegie Corporation, Charles Dollard, singled out his dogged persistence:

> I know that a lot of good men have invested their blood in the ACER but you were the one who sat up with the baby during all its chills and fevers and enabled it to survive all the diseases of childhood.[44]

---

[43] F.J. Schonell to W.C. Radford 8 December 1954, in Australian Council for Educational Research, In Appreciation, K.S. Cunningham, Director 1930–1954, presented to K.S. Cunningham and in the possession of Lesley Cunningham.

[44] C. Dollard to K.S. Cunningham, 27 April 1954, Australian Council for Educational Research, loc. cit.

7

RESEARCH IN EDUCATION: ITS FUNCTION AND ORGANIZATION

The New Director

The new Director from the beginning of 1955 was W.C. Radford who since 1946 had been Cunningham's Assistant Director.

Radford was 41 years old at the time of his appointment, had had a career very similar to Cunningham's, and was very much of the same mould. He was brought up in the western part of Victoria, joined the Victorian Education Department, and taught for several years from 1929 as a junior teacher at Horsham High School. He then attended the University of Melbourne and the Melbourne Teachers College, and taught at Bairnsdale, another country high school, from 1936 to 1937. He was seconded to the ACER as a research assistant, from 1938 to 1939, served briefly on the staff of the Preston Technical School and the recently formed Curriculum and Research Branch, and in July 1940 volunteered for service in the Australian army. He served with the artillery in the Middle East and New Guinea, and held various staff appointments, being closely associated for some time with Major General Ramsay who became Director General of Education in Victoria and President of the ACER. Radford was awarded an MBE for his services, reached the rank of major, and finally became a staff officer in London. He remained in the army until his appointment to the assistant directorship of the ACER immediately after the war in 1946.

His career at the University of Melbourne was a distinguished one. He obtained his BA degree in 1934 with first class honours in a combined honours school of English and French and his MA in 1937. He was awarded first class honours and the Hugh Childers prize in the Diploma of Education course, obtained his BEd degree with one of the best theses of the year in 1936 and his MEd in 1939. In recommending him for a Carnegie Corporation Fellow-

o

ship at the University of London in 1937, the Professor of Education at the University of Melbourne, G.S. Browne, wrote:

> Radford is an outstanding man of great mental ability, marked enthusiasm and skill as a teacher, and well qualified as a research student . . . Radford has a fine literary style, and would impress all whom he met by his personal qualities.[1]

His BEd thesis was developed more thoroughly into a piece of research for his MEd degree and was published by the ACER in 1939.

While he was on war service, the position of Assistant Director of the ACER was advertised. Out of an impressive field of 18 applicants, W.M. O'Neil was chosen by the executive in 1944, but the Council, thinking that sufficient opportunity had not been given to persons overseas on active service to apply, decided to defer a decision for 12 months and canvass the forces overseas.[2] In the following year, before the Council could make up its mind, O'Neil became Professor of Psychology at the University of Sydney.

Radford, then a major in the Australian army stationed in London, applied during the extended period and was duly appointed. He had, he confessed, by then 'for over five . . . years . . . been outside even the fringes of education'. Cunningham was not slow in directing Radford's mind to the job. As soon as he received Radford's cable of acceptance, he wrote suggesting that the new Assistant Director, while winding up his work in the army, might investigate H.C. Dent as a speaker and possible invitee to Australia, talk to the Director of the National Institute of Industrial Psychology about mutual use of tests and materials, see a liaison officer at Australia House concerning the supply of HMSO publications, inform himself on courses offered at the London Institute of Education, give his (K.S. Cunningham's) warm regards to Hamley and Clarke there, and think about returning via the USA and visiting the new Carnegie Corporation president in New York, John Russell in the Pentagon, and Segal in the American Educational Research Association (AERA). 'I may think of other things later', Cunningham concluded, 'but this is enough for a first letter.' The next one suggested that he make himself 'familiar with modern statistical technique' in the six weeks before he was due to leave England. In that way Radford was launched on his future career of work, constant and indefatigable, on behalf of the ACER.[3]

---

[1] G.S. Browne, February 1937, ACER archives, series 53, item 58.

[2] ACER executive minutes, July 1944, and Council minutes, August 1944, ACER archives, series 32, vol.44.

His principal educational research before his appointment had been done during his two years at the ACER, 1938–39, and during his BEd and MEd work at the University of Melbourne which had resulted in the publication of ***The Educational Needs of a Rural Community***. In this study, he surveyed the cultural facilities of the district of Bairnsdale in eastern Victoria, an area of 2000 square kilometres with a population of 8000. He found the schools to be little attuned to the needs of the community, and argued that they should accept as one of their necessary functions the task of working to raise the cultural level of the community both by radically revising their curricula and by providing adult education. The survey was admirably written and was judged by Hamley in 1944, when he had to give an opinion on Radford's eligibility to become a PhD candidate at the University of London, as 'very good indeed'.[4]

He enrolled for his doctorate during his military service in London, worked on his thesis back at the ACER in Melbourne, and eventually completed it in 1954 when he returned briefly to the university during his overseas trip on a Carnegie grant. His thesis, Consolidation: An Appraisal of the Effects of a Scheme of Consolidation of Schools in a Rural Area in Australia, demonstrated his continuing interest in rural education. It was a useful and comprehensive study of the establishment of a consolidated primary school in a mixed farming area of western Victoria. In 1948, before they were closed, Radford made a study—with an extensive testing program and questionnaire on social, economic, and educational items—of the 14 small one- and two- teacher schools that were to provide pupils for a consolidated school in the local township. To this he added a study of a similar group of schools elsewhere in Victoria that were to continue in existence. Later, two years after consolidation, he made a follow-up study of the consolidated and control schools. Radford found both gains and losses for the children but concluded that, on balance, the consolidation had been of benefit to them.

---

[3] K.S. Cunningham to Major Radford, 18 August 1945; W.C. Radford to K.S. Cunningham, 20 August 1945, and K.S. Cunningham to W.C. Radford, 21 August 1945 and 17 September 1945, ACER archives, series 32, vol.45.

[4] H.R. Hamley, Professor of Education to the Registrar, 22 July 1944, University of London, Institute of Education, files on higher degree students.

Another major study was completed shortly before he became the Director. In 1952 he was responsible for a factual survey of the non-government schools in Australia based on a questionnaire and a study of official material provided by state and non-state authorities. It was the first time that such a comprehensive account of non-government schools had been put together, and it was the beginning of the ACER's interest in the independent schools. The book became an important source of reference in the discussions on state aid to non-state schools during the 1950s and 1960s.[5]

When the directorship became vacant with Cunningham's retirement in 1954, there was little competition for the post. There were four applicants, and none of the other three could match Radford's record summarized in the selection committee's papers:

> As editor, joint editor or author has been responsible for eight ACER publications. Has exercised detailed supervision over almost all ACER research since 1946. Has initiated a good deal of the work carried out.[6]

Planning the ACER's Program

For the Council's annual meeting in 1949, Cunningham and Radford were requested to draw up a forecast of the ACER's forthcoming activities. In putting forward a three-year plan, about 30 per cent of which actually went into operation, they stated that they thought the ACER had four main functions and that a due balance should be maintained between them. The functions were:

> to fill gaps in present information, e.g. technical education, non-state schools, and post-school adolescent;
> to conduct large-scale or long-term investigations, such as the curriculum survey or developmental studies;
> to examine the growing points of Australian education;

---

[5] W.C. Radford, *The Non-Government Schools in Australia: A Descriptive and Statistical Account*, Melbourne: MUP, 1953.

[6] Applications for directorship, ACER archives, series 49, item 175.

to secure effective understanding and application of the results of research.

They were suggesting, in other words, that the ACER should be well up with the latest educational movements, should look towards research that could be seen to be of practical value, and should concentrate on broad rather than narrow issues. A survey kind of research was best suited to these kinds of aspirations. Apart from test construction, survey research occupied most of the research efforts of the ACER in the 15 years following the war, from 1945 to 1960. That was the period of the curriculum survey, the adjustment of youth project, surveys on correspondence education, non-state schools, school leavers, the vocabulary of the pre-school child, school inspection, adolescents, aspirations of able children, attitudes towards characteristics of classrooms, and science in independent schools.

These were at that time very much to Radford's taste. His own research—his Bairnsdale, his consolidated schools, and his non-state school studies—had been educational and social surveys. Like his predecessor he had a wide interest in all aspects of educational research, but he did not have any substantial training in educational psychology or psychometrics. He saw the value of continued work by the ACER in these areas, but he did not push it with the enthusiasm that an educational pscyhologist might have shown. He had an ambitious mind that was interested in broad problems and wide contexts. He was at home summarizing and synthesizing a wide range of data. He could happily sum up the main ideas expressed by participants in a week-end conference, or put together the diverse currents running throughout the 1937 NEF Conference, or assess the educational needs of a rural society, or select and draw attention to the main trends of a nation-wide curriculum survey. His interest and capacity were more sociological than psychological, and helped to move the ACER's research in the 1950s and 1960s into more sociological activity.

Radford's own principal concern throughout his directorship was with the general problem of the nature and organization of educational research. As Assistant Director he had been responsible for the conduct of much of the ACER's research program and general administration, but not for the determination of research policy. Once he became Director he had to face the responsibility of planning research appropriate for a national body. With somewhat complaisant presidents of the Council, Medley up to 1959, McRae for 1960, Ramsay from 1960–67 and Robertson 1967–69, the nature of the ACER's program during that period was decided almost entirely by the Director and his staff.

For the whole of his 22 years in office, Radford thought and wrote about educational research in Australia. From time to time he conducted surveys to ascertain what its condition was, and he incorporated the results of his surveys in substantial papers addressed to governments, and to his Council and other responsible educators.

Early Exploration and Views on Educational Research

In 1954, he spent seven months overseas on a Carnegie grant and, on his return, wrote a general survey of educational research in the USA, Canada, England, and Scotland. He was abroad again at the beginning of 1956, attending a small international conference on educational research in the USA at Atlantic City. This led him to organize a survey of educational research in Australia since 1950, for publication in the *Review of Educational Research*, a journal of the AERA, in 1957. In that year he also wrote two articles for the newly established *Australian Journal of Education*, one on educational research in Australia 1950–56, the other, with J.J. Pratt, on educational research on problems of the primary school, 1950–56. In connection with the survey and resulting articles, institutions throughout Australia were asked to provide abstracts of research work completed since 1950, and subsequently each year, for filing in the ACER library. The collection would complement the annual list, *Educational Research Being Undertaken in Australia*, published by the Commonwealth Office of Education since 1950. The scheme continued for a few years, but eventually lapsed because of the unreliability of the returns from the various research centres.

In these articles, Radford began to explore the questions that were to remain with him for the next 20 years. They were, principally, five:

(a) What is the nature of educational research?
(b) What educational research is currently needed?
(c) How can research be best encouraged and organized?
(d) How can research workers be trained?

(e) What is the ACER's task in the conduct and organization of research?

He did not answer them fully nor did he treat them together in one speech, article, report, or pamphlet. He kept worrying away at them over the years, gradually modifying and clarifying his views.

In the first year of his directorship, Radford talked to the VIER on his recent overseas visit to research institutions and on his views concerning educational research. His talk was reported in a journal recently established by the VIER.[7] He confessed to being much impressed by the extent to which the research attitude was found in all the universities he visited and in the administration of education in the USA. Clearly he saw the development of a similar attitude in Australia to be one of his main tasks and ambitions. Equally clearly, he was convinced that the kind of research he wished to promote was one which could be seen to have application to practical educational situations. 'It has no value', he stated, 'to me, unless it helps to improve one of two things—either the actual classroom process, or the actual administrative machinery.'[8]

Three other observations that he made were further indications of research policies that he was subsequently to be interested in developing. The relationship between research and innovation in education had always been a problem of considerable interest for the ACER. It was part of its original charter, in James E. Russell's words, 'to keep the system alive and alert' through its activities. In its first 25 years, many of its surveys had made educators aware of deficiencies and had suggested possible changes, and its test development had provided instruments for improving diagnostic, guidance, and selection processes. But, for the most part, the ACER's conscious services to innovation in Australian education were separate from its research functions; they were by way of advice to individuals or committees seeking opinions from the ACER staff, by publication of considered views on many aspects of education, and by the promotion of overseas visits by significant Australian educators or visits by overseas educators to Australia. The problems involved in relating research to educational change had not yet been seriously faced. Radford was aware of this. He realized that his interest in seeing that research should aim to improve the practice of education made it necessary for him to think about ways of ensuring that practice would, in fact, be influenced by research. 'You must face the question', he wrote, 'of how to bring that change about.' The notion, that a change in any practice can be achieved most efficiently by involving the practitioners in the process of planning the change, had been widely discussed and operated on in the reconstruction period following World War II. Radford saw the application of it to the ACER's situation.

---

[7] W.C. Radford, Routine, revelation or revolution—the function of research in education, *Journal of Education* (VIER), 1955, 2(2), 54–60.

[8] ibid., p.60.

> I believe there is enough evidence available now, to demonstrate quite clearly that the most effective way is to involve the people responsible for effecting the change in the research and enquiry that leads up to it.[9]

He was to use this principle wherever it was feasible in developing programs of collaborative research. Whatever other means of dissemination were available should also be associated with it. He approved, therefore, of reinforcing the process by, for example, a wide distribution of discussion pamphlets and summaries of research, and the use of summer schools, conferences, and workshops.[10]

A second matter attracted his attention during his overseas trip. He found that the view was very strongly held in universities that the best research was done when good researchers were encouraged to work on their own interests. 'Pick a man and give him his head' was the best strategy. A few of his consultants, however, thought it more productive to develop an overall program for a department into which individual talents might be carefully fitted. There was a danger that individuals and even departments might be tempted to accept a research project from a funding authority not because they were convinced of its value but because funds were available for it. He was to encounter this dilemma in his administration of the ACER. He was attracted both ways—towards encouraging individual projects from his staff, and towards developing an overall plan of research for the institution.

---

[9] ibid., p.60.

[10] W.C. Radford, *A General Survey of Educational Research in the United States of America, Canada, England, and Scotland*, Melbourne: ACER, 1954, p.41.

The third conclusion that he formed from his overseas visit was that independent agencies such as the ACER, even more than research branches in educational authorities or universities, needed a clear statement of policy, to demonstrate their independence from but willingness to co-operate with other agencies.[11] The ACER's research policy had grown up to serve, as far as resources allowed, what the Director and Council saw to be the nation's current educational needs. There had been no sustained and fundamental thinking about what might be the most comprehensive and useful program. Radford was interested in trying to produce such a plan.

In his initial exploration in the mid-fifties, he found that the most part of current research was being done in university departments of education and psychology. Since World War II, the number of centres in Australia where educational research was being organized had multiplied well beyond the situation of the 1930s when it was confined principally to two teachers colleges and universities, three state education departments, and the ACER. In the 1950s, all the universities were contributing a small but steadily growing quantity; perhaps three or four teachers colleges were able to find some time for research; the Commonwealth Office of Education had entered the field mainly with a number of national surveys on universities and selected aspects of education; the ACER contribution had grown but, because it had to be careful of its finances, its research had slowed down during the 1950s; and, finally, all the state education departments had begun to add to the research total, some in quite notable ways. New South Wales had continued since the 1930s to produce useful studies and, since the war, Queensland had blossomed by developing experimental studies in the teaching of reading, by setting and comparing standards in basic subjects, by inquiring into guidance and selection procedures, by examining the relative difficulty of learning various arithmetical facts and processes, and by constantly publishing bulletins and articles on this work for all teachers to study. There was a trend towards co-operative research both at an individual and institutional level. Two, three, or four researchers with different skills and backgrounds would join together on a single project to produce, it was hoped, a more substantial and richer result. The ACER also had collaborated on a readiness program with the Western Australian Education Department and a survey with the teachers colleges, and was hoping to plan an extensive collaborative piece of research into secondary education in Australia.

---

[11] ibid., p.40

Much of the research was unpublished since much of it was in higher degree theses or in state departmental papers. Nevertheless there was a wide and growing variety of journals in Australia and overseas in which Australian researchers were currently publishing their material. To cater for the growing demand and to encourage further research of good quality, the ACER in 1957 established the *Australian Journal of Education*.[12]

It was difficult to determine what the research needs were for Australian education. At least it could be seen that there were growing interests in two areas. Sociological studies related to education, of which the recent distinctive work of Oeser and others at the University of Melbourne on *Social Structure and Personality* had produced useful basic material and original techniques of data collection and analysis, and studies in the history of Australian education were both rapid growing-points in educational research. Radford thought that areas in which work specially needed to be done in the near future were those of secondary education, educational theory, and the exploration of the educational demands of Australia's growing technological society. It was of particular importance that more research should be seen to be related to the needs of educational practice. His attendance at the Atlantic City conference in 1956 developed his interest also in two matters that had been seriously discussed there—co-operative international research studies, and the selection and training of research workers. In both these areas Radford, during his directorship, was to show considerable interest.

With a reasonable degree of consistency, he recommended to his Council in 1956 that the ACER might be able to make its 'maximum contribution to Australian education' by always having one project in each of the following four fields:

> the study of the community factors and goals determining the content, organization, and objectives of education;
> the study of learning as it affects school situations;

---

[12] See Chapter 8, under Publications.

the evaluation of current practices in classroom activity and administration;
the development and trial of new techniques and methods based on Australian or overseas research.

The four suggestions needed to be sharpened and more closely defined before they could become the basis of a practical research program. It would also have required a change and expansion of the ACER's current staff.[13]

A Field for Many Tillings

A more systematic effort to deal with the fundamental questions he was facing in educational research was made in the early 1960s. It led up to the publication in 1964 of his main contribution to the topic, *A Field for Many Tillings*. It had been requested by the Council at its annual meeting in 1962 and was discussed at the next annual meeting in 1963 and at a special meeting in May 1964 before its publication. A similar analysis was incorporated in a chapter on Research in Education which Radford contributed in the same year to a book, *Education for Australians*, edited by the vice-president of the ACER, R.W.T. Cowan.

A Field for Many Tillings was piecemeal, repetitive, and of varied quality. Nevertheless it was a first attempt by any educator to make a serious statement about educational research in Australia, and it put forward a research plan for the ACER which the Council found acceptable. It was the Director's own composition but had involved discussions by the ACER staff and included current staff interests in its program.

---

[13] The above account is based principally on:
W.C. Radford, Routine, revelation or revolution, loc. cit.
——, *The First International Conference on Educational Research, Atlantic City, NJ, 13th–21st February 1956*, (Information Bulletin No.34). Melbourne: ACER, 1956.
——, Educational research in Australia, 1950–56: unpublished address to the VIER, November 1956, ACER archives, series 54, item 138;
——, Educational research in Australia and New Zealand, Section A: Australia, *Review of Educational Research*, 1957, 27(1), 7–19;
——, Educational research in Australia, 1950–56, *Australian Journal of Education*, 1957, 1(1), 45–54;
—— and J.J. Pratt, Educational research on problems of the primary school, 1950–56, *Australian Journal of Education*, 1957, 1(2), 124–34;
Australian Council for Educational Research, *Twenty-sixth Annual Report, 1955–1956*, Melbourne: 1956, pp.30–2, 38.

Research in education he defined rather baldly as 'asking questions about some aspect or aspects of the educational system and collecting facts to answer those questions'.[14] The definition was filled out rather more in his earlier article in 1955:

> I shall regard research as meaning recognizing and defining a problem; designing procedures to provide partial or complete answers to it; collecting information by those procedures; collating and analysing the information and interpreting its results; and checking and testing the interpretations to be certain of their validity and general soundness.[15]

This was a statement of the traditional view of scientific method. How far it applied and was actually used in educational research he did not indicate. His own doctoral thesis on school consolidation would have been a good example of its use. He did not dwell, however, on the nature of educational research. He did not look at what, if anything, might distinguish research in education from research in physics or psychology, nor did he use the work done by the ACER to explore, through it, possible criteria for educational research. His interests, rather, were in the organization and content of educational research.

What were the priorities for Australia in educational research? Various centres and research workers had selected major problem areas and had made useful contributions. In *A Field for Many Tillings* and elsewhere, Radford cited six areas of note, with most of which the ACER had had some connection. Success and failure in university study had been well documented by the work of Hohne, Sanders, and the Commonwealth Office of Education; a body of knowledge on Australian adolescents had been accumulated through the studies made by Wheeler, Connell, and Spearritt; the history of Australian education had been substantially developed in Sydney and Melbourne universities; important aspects of ability and achievement in schools had been carefully tested and surveyed in studies by the ACER and by the Queensland and New South Wales education departments; a longitudinal appraisal of primary school standards had been undertaken by the ACER and by the Queensland education department; and significant work on retardation and backwardness had been done at the University of Queensland.

---

[14] W.C. Radford, *A Field for Many Tillings*, Melbourne: ACER, 1964, p.6. A similar definition was given in R.W.T. Cowan (Ed.), *Education for Australians*, Melbourne: Cheshire, p.255: 'Research in education is the systematic collection of facts about some aspect of education which will help to answer a question'.

[15] Radford, Routine, revelation or revolution, p.54.

Were these the most important areas on which Australian research should be concentrated? Some were central, but the choice had been somewhat fortuitous. If the role of research was to provide answers, as Radford suggested, on the kind of knowledge which was essential for the efficient conduct of education, and on the most important unsettled issues affecting current educational practice, then research should be directed towards building up basic knowledge on the pupils' background, the learning-teaching process, the measurement of pupils' progress, the content of education, the organization of schools, and the current issues of which he listed 12, ranging from the effects of various forms of pre-school programs, to the characteristics of successful teachers and the purposes and effects of examinations. It was a wide-ranging program for research in which it was difficult to distinguish the priorities. Radford acknowledged the difficulty and decided to analyse existing research resources and coverage of topics before trying to settle more explicitly on priorities.

He estimated that the equivalent of the time of 150 full-time research persons with professional training, out of a total teaching force of about 100 000, was currently being put into research in education in Australia. They were supported by about 100 clerical staff. The total investment in research amounted to about £500 000 per annum, 0.2 per cent of what was spent on education.[16]

With these slender resources, educational research had made no great impact on educational practice. In view of the present scantiness of research facilities, there was a great need to rationalize them. Research during the past seven or so years had been spread widely and not very carefully directed. He picturesquely described it 'as a patchwork with some spots of colour, a good deal of drabness, and a great deal of virgin surface'.[17] The rationalization might proceed in three ways, by co-ordinating the work of research wherever possible, by making a division in function between the different bodies concerned with research, and by selecting critical research problems appropriate to each of the bodies.

---

[16] Radford, *A Field for Many Tillings*, p.19, and Cowan, op. cit., p.266.

[17] Radford, *A Field for Many Tillings*, p.25.

Radford suggested, for example, that the Commonwealth Office of Education might work more closely with university researchers on problems of tertiary education, that the state departments might develop more joint projects, and that all bodies might develop special interests—such as the ACER's long-established connection with test construction—that others should not impinge on.

He was interested in the sequence of steps by which an improvement might be made in an educational process. One possible four-step sequence was to begin with basic scientific investigations that might have some relevance for schooling; by scientific research, to apply the basic ideas to controlled school situations; then to translate the results into a specific school program; and, finally, to disseminate the findings, with possibly some feedback from schools into earlier parts of the process.[18] It would be possible, Radford suggested, to divide the functions of the various research agencies in Australia in a general way according to this pattern. Basic and applied scientific studies—the first two steps—would be undertaken by universities, teachers colleges, ACER, and the Commonwealth Office of Education; the third and fourth steps—translation into practice and dissemination—would be the function of state education departments. The analysis was a very rough one and it is doubtful if any of the agencies approved the role that Radford was interested in allotting to them. The attempt, however, was interesting inasmuch as it was the first time that the connection between research and innovation had been seriously examined by the Director and Council of the ACER. The mechanism of the relationship was not probed in any depth on this occasion. It was to be raised more clearly within the next few years when the ACER began to develop new curriculum materials and to become considerably interested in curriculum construction as a way of affecting ideas as well as practices in the schools.

---

[18] ibid., pp. 32 ff. Radford acknowledged, as the source of the pattern, D.L. Clark, The function of the United States Office of Education and the state departments of education in the dissemination and implementation of educational research, In Phi Delta Kappa, *Dissemination and Implementation: Third Annual Symposium on Educational Research*, Bloomington, In.: 1962.

Four critical problems to which the attention of researchers should be directed were given by Radford as examples rather than as an exhaustive list: research into reading, primary school mathematics, individualized learning, and teacher training. There was much to be done in each area, and he thought they were likely to receive a great deal of attention in the next few years. The first three were already of considerable interest to the ACER and were to remain important in its program. On reading research, he suggested the way in which the work could be divided up. State departments could concentrate on methods, materials and dissemination—steps three and four of his previous analysis; universities and teachers colleges could work on the analysis of the reading process and its improvement—steps one and two. The Commonwealth Office could look after all four steps in a special study on migrants. The ACER

> could help ideas to crystallize by collating Australian research, suggesting ideas, preparing critical reviews, reporting on tryouts of new material, and on modifications made before or after trial, and so on.[19]

In the other critical projects too, he saw the ACER not as the producer of original research work, but as an evaluator, critic, and catalyst. It was, in effect, a midwife's role that the ACER would play. It was largely in that kind of role, to good effect, that Radford acted towards educational research in Australia during his 22 years as the ACER's Director. It was an enabling rather than a creative role, and it was not the kind of part that was likely to satisfy talented members of his staff nor, if it became the ACER's general research role, would it be likely to attract highly original research workers to his staff.

Fortunately the research program he proposed to the Council gave his staff rather wider scope. It divided the work into four main areas:

(a) historical–comparative–critical descriptive–information;
(b) experimental and survey studies in two divisions:
learning studies; and
(c) organization, curriculum, and method studies;

---

[19] ibid., p.44.

(d) measurement and evaluation.[20]

The program was in addition to the continuing work of the ACER's test division, educational services department, and library.

The historical-comparative division was to keep the ACER's sources of information up to date; to prepare interpretative bulletins, e.g. on school holding power; to prepare informational statements on request; to undertake continuing research on Australia-wide topics, starting with a study of the factors that have influenced the development of secondary education, e.g. music education and agricultural education; to prepare reviews of significant developments in Australian education; and to produce a general review of Australian education every five years.

The experimental and survey divisions, though separate, would be expected to co-operate closely. One division was to keep abreast of learning theory; to analyse learning situations in classrooms; and to undertake research on selected areas of educational practice, beginning with a study of concepts of class and symbolization with reference to language skills in the infants department. The other division was to concentrate on school organization, curriculum, and method, conducting studies of school administration and classroom organization such as streaming and grouping, and trying out new materials and new organizational procedures.

The division of measurement and evaluation was to be interested in basic research such as the nature of abilities and new theories in testing and psychometrics; in the impact of testing on educational practice; in surveys of attainment; and in in-depth studies of particular areas such as a continuance of the work of Spearritt and Duff on listening.

In his annual report for 1964, Radford slightly readjusted his expression of the ACER's role in respect to the four-step process of relating research to educational change. He wrote that 'for the time being' the ACER seemed best fitted to work at the levels of steps two and three, i.e. applying scientific research and devising methods and programs. There was more than a hint in this that the Council might think of developing the ACER into an Australian equivalent of the Research and Development (R and D) centres initially established in 1963 and widely discussed in the USA. In such a case, it would have the task of working through a program of research by which it might produce exemplary materials or methods for schools and oversee their introduction and dissemination. The ACER's work in test construction approximated to the R and D pattern. There was need for more research on what kinds of tests were required and on their effects; and this was to be part of the proposed work of the new measurement and evaluation division.

---

[20] The division was almost identical with the grouping given in the well-known textbook, C.V. Good, A.S. Barr, and D.E. Scates, *The Methodology of Educational Research*, New York: Appleton, 1936, used for many years at the University of Melbourne.

Cunningham used these categories in an address to the embryonic Social Sciences Research Council, but did not attempt to plan the staff and work of the ACER by them. ACER archives, series 49, item 183.

The ACER, however, did not become an R and D centre, nor did it concentrate on becoming the midwife of Australian educational research. It took on something of both functions, and it continued with much of its previous *ad hoc* approach to research, taking up interesting projects as they came to hand and developing others which seemed at the time to be pertinent.

Radford's analyses and the discussions associated with them did have a noticeable effect on the ACER's research activities. They gave to the activities more sense of order and direction. The proposed reorganization into four divisions took place in 1964 and, although there was only one research officer in each division, it was possible to develop work in each area and subsequently to add to the staff. Not all that was undertaken was new work, but several notable new projects were begun in each division. R.T. Fitzgerald, who was the first appointment to the comparative–historical division in 1964, began work on a study of the factors and forces affecting Australian secondary education; in the same division, reviews of music and agricultural education were started. Mary Nixon, also appointed in 1964, set studies in the learning division under way with preliminary work on concept development in young children. J.P. Keeves—of the organization, curriculum, and method division—became involved in two new projects in the teaching of mathematics: within the curriculum division, the organization of a national conference in March 1964 on mathematics in the primary school and the preparation of a manual for teachers on mathematics teaching; and, within the measurement and evaluation division, an international study of educational achievement in secondary school mathematics at the 13-year-old and pre-university levels. During 1965, he attended conferences in Chicago and Hamburg in connection with the international study.

Establishing a Basis for a National Research Policy

In 1966, the Commonwealth Government established a Ministry for Education and Science which superseded the Commonwealth Office of Education. Throughout 1967 its new secretary, Sir Hugh Ennor, made it his business to talk at representative gatherings and seek from a variety of individuals advice on suitable activities for his ministry.

In May 1967, the ACER organized a five-day conference at Melbourne Teachers College on Research into Education: Improving its Value to the Practice of Education. There were 80 participants from the ACER, universities, teachers colleges, and federal and state departments throughout Australia, together with several visitors from Canada, USA, New Zealand, and Papua New Guinea. Twelve papers were presented by participants, and the conference was opened by Ennor who spoke of the need to raise the intellectual level of educational research and of the importance of ensuring the availability of research to the practice of education.

In some of the papers, there was the beginning of an effort at a more thorough analysis of the nature of educational research, for example in educational sociology, teaching, and school organization. The establishment of a professional association for educational research workers in 1970 subsequently provided more opportunity for serious discussion on the theory and practice of research but, up till that time, there had been little stimulus to fundamental thinking about the nature of educational research. At the 1967 conference, the interest was almost exclusively in organizational matters. There were papers pointing out the inadequacy and fragmentation of Australia's effort in educational research, the importance of an injection of funds from the Commonwealth Government, the need to train more research workers and possible means of training them, various ways of applying educational research to educational practice, and the kinds of developments taking place in the organization and funding of educational research overseas. Radford summed up the conference, and a resolution was passed affirming that a rapid expansion of research and a more efficient dissemination of results were necessary. To achieve these ends, more funds and more research workers were needed. The establishment of institutes for research in education with a full-time research staff, collaborating with schools and other educational bodies, would raise the quality of research and provide opportunity for the internship training of more research workers. Both state and federal governments could increase their funding, and the Commonwealth Department of Education and Science might undertake a survey of 'the need for, desirable support for, and acceptable organization of research into Australian education'.[21]

Later in 1967, Ennor gave the Theodore Fink Memorial Lecture at the University of Melbourne in which he spoke of the need for more research and for research of better quality on Australian education. He suggested that proposals for the expansion of educational research should be brought forward to the Commonwealth Government. As a consequence of the lecture, Radford convened a small interstate working party to develop a proposal for submission to the government. It met first in May 1968 and during the following 12 months produced a substantial document. R.W. McCulloch, from Monash University, who had been a Tasmanian representative on the Council of the ACER from 1961 to 1965 and had given a paper at the 1967 Research into Education Conference, produced a working paper which the group accepted as a guideline for the final document. The meeting decided to obtain information on the current state of research by conducting a survey by questionnaire of all research agencies in Australia.

In the course of the preparation of the document, T.L. Robertson, who was president of the ACER from 1967 to 1969 and had formerly been Assistant Director of the Commonwealth Office of Education and Director-General of Education in Western Australia, delivered the Frank Tate Memorial Lecture for 1968 at the University of Melbourne, in which he dealt at length with educational research. He pointed out the acute needs of research and the inadequacy of existing facilities, funds, and the supply of trained researchers. He suggested the establishment of a national advisory committee on research in education, separate from but parallel to the Australian Research Grants Committee which since 1965 had made grants to research workers in all fields. The new body would advise the federal and state governments on the needs of educational research, would act as a co-ordinator, and make grants to research agencies and individuals.[22]

---

[21] Australian Council for Educational Research, *Research into Education*, Hawthorn, Vic.: 1967, p.148.

Radford in an extensive report to the Council in 1968 took up, along similar lines, the idea of a national committee, and suggested the establishment of state advisory committees to advise the national committee and to help distribute federal funds. He reiterated the need for better training for research workers, especially through an internship process, but was curiously blind to the need to provide more adequate training for the internees on secondment to the ACER. He drew attention again to the American R and D centres, and expressed less certainty about the most desirable functions of the various agencies in Australia than he had four years earlier in *A Field for Many Tillings*: 'Any clear-cut separation of roles', he wrote, 'is illusory'.[23] Any division of roles among the various bodies could simply be a matter of mutual agreement, and any of the bodies might undertake any or all of the functions of research development and dissemination. He made a brief statement of his own long-term priorities for research but put them in very general terms: research into stimulation of early childhood development, the relationship between learning and teaching, and development at the pre-adolescent and adolescent periods. He summed up his wishes as an increase of funds for both commissioned and uncommissioned research, expansion of training facilities for research workers, better co-ordination of research agencies, and the development of new units within them.

During this period, Radford learnt much more about the R and D centres in the USA, and became much more interested in the function of development. He had always been very conscious of the need to relate research to the practical requirements of the school classroom, and he saw in the idea of development a useful contribution that research institutions could make to the improvement of education. In 1969 he gave a talk, to the Newcastle Branch of the NSWIER, concerned entirely with the work of American R and D centres. He raised the question of their pertinence to Australian education and answered by saying, 'I believe we too need procedures which seem to me well captured in the R and D centre [idea]'.[24] In the same year he addressed a New Zealand College of Education conference on the application of research. He emphasized both the desirability of involving in research those affected by it, and the importance of involving the research organization in developmental activities. Development was 'a deliberate attempt to incorporate knowledge into institutional structures, into technologies, into materials and methods, and into teaching and learning behaviour'.[25] He did not ever declare the ACER to be an R and D centre but, during the 1960s and continuing through the 1970s, he encouraged an expansion of developmental activities in the ACER. The very considerable contribution by the ACER to a wide range of curriculum development and its continuing program of test construction were the leading examples of this tendency.

---

[22] The speech was reported in Australian Council for Educational Research, *Thirty-eighth Annual Report 1967–1968*, Hawthorn, Vic.: 1968, pp.25–8.

[23] ibid., p.12.

By April 1969 the report of the *ad hoc* working party had been prepared, circulated to consultants, and put into its final form. A meeting was sought with the Minister for Education and Science.[26] Four interested parties had come together to produce the report: the ACER, state departments, universities, and the Australian College of Education. The College was an organization of professional educators established in 1959 to bring together teachers from all levels and from all kinds of institutions. Radford had been greatly interested in it since its inception and was its president from 1969 to 1971. Currently the College was concerned in an effort to get a National Foundation for Education established, one of whose functions would be the funding of educational research—hence its interest in the objectives of the working party.

---

[24] W.C. Radford, Research and development in education: address to NSWIER, Newcastle Branch, 1969, ACER archives, series 54, item 137.

[25] W.C. Radford, Involvement in the application of research: address to the New Zealand College of Education, 1969, ACER archives, series 54, item 141.

[26] W.C. Radford to M. Fraser, 22 May 1969 and 8 July 1969; M. Fraser to W.C. Radford, 13 June 1969 and 4 July 1969, ACER archives, series 54, item 121.

Led by Radford, a deputation consisting of a representative from each of the four groups met the Minister and a small group from the Department of Education and Science to discuss the working party's report. It was a somewhat rambling and repetitive document which traversed the same ground covered in the 1967 Conference and in Radford's various reports and addresses. To its ten pages of recommendations, it added a number of annexures on the present situation in Australia and overseas, the functions of an advisory committee, the establishment of priorities, dissemination, and possible patterns for research units, together with a lengthy appendix with details of the 1968 survey of current research in Australia. Pertinaciously, the same matters were again hammered – resources, training, funding, priorities, and the co-ordination of research. The group argued for the establishment of a permanent national advisory committee; the immediate grant of 50 three-year postgraduate fellowships and 50 two-year internships for training in educational research; and substantial annual grants to all educational agencies, which would approximately double the amount currently spent by them.[27]

It was a successful political exercise. The Commonwealth authorities were decidedly interested in the case for an expansion of educational research and in the proposal for a national advisory and funding committee. They were unwilling to become committed to any of the other activities proposed in the report until a national committee had met and made recommendations.[28]

As a first step, the Department of Education and Science called together a more widely representative group to consider the matter of the establishment of a national committee. The committee of which Radford was a member met for two days in September, re-examined the same questions as the 1967 Conference and the working party, using conference papers again and the working party's report.[29] It recommended the creation of a National Advisory Committee on Research and Development in Education to keep educational research and development under constant review, advise on priorities, suggest measures for the training of research workers, make recommendations about the collation and dissemination of research, and recommend financial support for research submitted to it or proposed by it. The committee was to have a chairman, preferably full-time, and nine members representative of wide interests in education, and was to be supported by a full-time secretariat.[30] In 1970 the Australian Advisory Committee on Research and Development in Education (AACRDE) came into being.

---

[27] Australian Council for Educational Research et al. (*ad hoc* committee), A Submission to the Commonwealth Government of Australia on the Organization and Funding of More Research into Australian Education, April 1969, unpublished, ACER archives, series 54, item 182.
The members of the delegation were T.L. Robertson, W.C. Radford, J.J. Pratt, G.W. Bassett, all of whom had close connections with the ACER, and F.H. Brooks, the Director-General of Education for Victoria, who later briefly joined the Council.

[28] Memorandum re deputation to federal Minister for Education and Science on research in education, ACER archives, series 54, item 182.

The campaign for federal funding and a national advisory committee produced valuable results by raising the level of resources available for educational research. All parties were agreed that much more research should be done, that other countries had been busily encouraging it, and that it should be closely related to the schools and their needs. There was, however, a disappointing lack of analysis of what should be done and how research workers should go about it. The situation recalled the circumstances of the foundation of the ACER in 1930 when, with much enthusiasm and goodwill, the organization was established to fill a need which no one then or since had thought through intelligently and thoroughly. The consequence had been that the ACER's research program had mostly been characterized by attention to what seemed to be the interesting or urgent matters of the moment. It was essentially an *ad hoc* program.

Radford and his colleagues' thinking had succeeded in providing a better basic organization for the ACER's work and had been an essential stimulus in the political campaign. But, for all the analyses that the Director had made up to that point, and all the discussions that had been arranged, no research brief for Australia or for the ACER had yet emerged except in the most general terms. It seemed that nothing had yet been done to stimulate the professional mind of Australia's educational research workers. The emphasis on organization rather than on research questions was well illustrated in the composition of the committee called together in September 1970 by the Commonwealth Department of Education and Science to discuss research in education. It had 16 members of whom probably two were actively engaged in educational research, and another two involved in administering research programs. The remaining 12 were administrators of note who had never been and would never be personally involved in educational research.

---

[29] A.H. Ennor to W.C. Radford, 2 September 1969, ACER archives, series 54, item 121.

[30] K.N. Jones to W.C. Radford, 9 October 1969, ACER archives, series 54, item 121.

There had been a listing of general topics for research, but so far no penetrating analysis of the fundamental research questions that needed investigation.

In the case of the ACER, the existence of a strong test division was in itself a challenge to research. The ACER had spent much of its time constructing tests of general ability, aptitude, and achievement, and, as the Director stated, was 'regarded as a good maker of tests'.[31] It had used as far as possible the best available procedures in such work. It had paused briefly to question some of the theory on which the work was based, and it had produced reputable tests in new areas. But it had not raised seriously and publicly two important sets of questions.

What kind of impact was the extensive production and sale of tests having on Australian education? Was it possible that some testing programs were educationally desirable and others not? Did their extensive use lead to a pseudo-scientism and emphasis on the wrong elements in educational practice? Was the use made of the tests in the selection and placement of students consistent with the reforming attitude that had been a characteristic of the ACER from the beginning of its history? The reconstruction which the ACER had supported was to be a social as well as an educational one. Was it possible that its test dissemination was counter-reconstructive? If the content of some widely used tests had a social class bias, as research on similar tests overseas had long been demonstrating, it was possible that the ACER's influence was a socially conservative one. Since many of the tests were specifically constructed on contract to meet the requirements of existing practices in the education departments who ordered them, it was possible that, through them, the ACER's influence too was an educationally conservative one. Studies on the Commonwealth Secondary Scholarship Examination set by the ACER suggested that the awards tended to go overwhelmingly to students not in need of financial assistance. Such findings and their implications for the whole testing program provoked discussion and caused concern among the staff in the test research and development area. None of these basic questions, however, was ever the subject of sustained research by the ACER. They were all well-known queries that had been under discussion overseas, and to a lesser extent in Australia, and were clearly pertinent to the ACER's activities.

---

[31] Australian Council for Educational Research, *Thirty-fourth Annual Report 1963–1964*, Hawthorn, Vic.: ACER, 1964, p.16.

The second set of questions was of a different kind. L.J. Cronbach drew attention to Flexner's distinction between empiricism and science.

> The empiricist in education stops with the comparison of gross effects. He asks whether curriculum A teaches more mathematics than curriculum B . . . But research that is no more than an empirical check on the effectiveness of some educational package does not get to the heart of the matter.[32]

What is needed is a search for explanatory principles. There is also a further step of significance. It concerns Kuhn's view of normal science and research that leads to scientific revolutions. Normal science follows a pattern of investigation into certain kinds of questions in certain acceptable ways that have been established as important. Important information is built up in this way but no great advances are made. What are needed for substantial progress are the new ideas, and perspectives that jump into focus when a radical mind asks a new question. 'In education', Cronbach wrote, 'as in other fields, normal science is not enough. We must maximize the likelihood of scientific revolutions'.[33]

The ACER's test program for the most part was an exercise in empiricism. It was of considerable service to the schools, but was it educational research? Radford appeared to have doubts on the matter. Considering the work of test development after Dunn had left the ACER, he remarked in his 1968 Annual Report that 'the continued creation of test questions and the making of tests is not enough for the kind of staff we want'.[34] He wanted them to contribute to the methodology of testing and learning, but confessed that it was difficult to find time for them to do so. If test construction was not sufficiently creative, what could be done about the matter? He had set up a measurement and evaluation division withi the general research department separate from the test division, bu with a limited general research staff it was scarcely viable.

---

[32] L.J. Cronbach, The role of the university in improving education, *Phi Delta Kappan*, 1966, 67(10), p.543.

[33] ibid.

Was it possible within the ACER to nurture the kind of research that would lead to radical breakthroughs in educational thought and practice? It was the only institution in Australia with a body of full-time research workers with no obligation to serve a particular schoo system. Could it not be expected, therefore, to make a substantia effort to lead Australia by the significance of its research? It capacity for such a contribution was, in fact, a little illusory. It wa not free of responsibility to federal and state governments. The provided a substantial part of its income and there had been uncertainty until their support had been secured in 1946. Even until th end of the 1950s, the Council had felt uneasy each year at th possibility that the various governments might decide not to rene their annual grants or, as inflation mounted, might not raise th amount of the grant to match the ACER's rising costs. Thereafte government support was not in doubt though the amount of it required negotiation, and the ACER had to be able to show that it wa responsive to the expressed needs of the various education departments. Sales from tests and materials, many of them produced b the ACER, contributed a large part of the income[35] and, consequently, absorbed a large part of the effort of the institution. Apar from the financial constraint, there was a staffing one. The bes research requires the best people. As the universities and colleges o advanced education expanded rapidly in the two decades after 195 the ACER continually lost many of its best qualified staff to them S.S. Dunn and M.L. Clark managed to stay for about 20 years befor they succumbed, but many had much shorter periods. The traffic was one way. The ACER did not manage to recruit anyone from the staff of a university. With such constraints, how far could the ACER go adventuring in ideas?

---

[34] Australian Council for Educational Research, *Thirty-eighth Annual Repor 1967–1968*, Hawthorn, Vic.: 1968, p.33.

[35] See Chapter 8, under Publication and Sales Policies, and Chapter 9, Testing an Research Programs 1960–80.

Establishment of the Australian Association for Research in Education

It was of great importance for the health of the educational research community that an association of research workers came into being in 1970. The Australian Association for Research into Education (AARE), through its annual conferences and training sessions, became an important medium for the maintenance of information, ideas, and friendly relationships among the research profession, and it provided, for the first time, an opportunity for the serious presentation and discussion of ideas on the nature and conduct of research.

The 1967 conference at Melbourne Teachers College was the first occasion on which a conference had been convened specifically for educational research workers. Out of that meeting, the possibility of a continuing association was developed and subsequently canvassed at the Victorian Institute of Educational Research. The Institute's representative, G.D. Bradshaw, brought the idea to the ACER's annual meeting in 1968, met with encouragement, and was asked, with the Director, to look into the matter more thoroughly. They reported back to the 1969 annual meeting that they had a number of informal discussions and intended soon to convene a meeting of interested persons.

Accordingly Bradshaw and Radford circulated, to the heads of most of the research agencies and several other persons, a well-developed outline of a proposal for an 'Australian Association of Researchers in Education' and invited them to attend a meeting on the matter at the ACER on 13–14 March 1970.[36]

The meeting, chaired by the president of the ACER, P.H. Partridge, who later in the year was to become the first chairman of the AACRDE, was attended by 32 persons. After considerable debate, a motion proposed by Connell and seconded by Keats 'that an association of research workers in education in Australia be formed' was passed. Some misgivings were expressed at the possible ill effect on the Institutes of the formation of the new association, but the desire for a national organization beyond the separate State Institutes predominated. It was to be a forum for the genuine discussion of educational research, a meeting place for researchers in the same fields and in various disciplines, and a possible pressure group with governments on behalf of educational research. The usual spirited discussion took place on the naming of the new child, in which none of the seven proposed on the agenda was accepted, and it was eventually declared to be the Australian Association for Research in Education. A provisional committee was then selected to organize a founding conference in Sydney in November 1970.

---

[36] G.D. Bradshaw and W.C. Radford, Proposed formation of an Australian Association of Researchers in Education, ACER archives, series 54, item 210.

Approximately 100 persons attended the first conference in Sydney, described in a brochure as being at Australia's leading motor inn at Newport.[37] Radford, as one of the co-founders, gave an inaugural address, Old and new horizons: Hopes and fears, in which he made a stocktaking of educational research in Australia updated from that presented to the federal minister in 1969. The number of full-time research workers in Australia had risen from 136 in 1968 to 220 in 1970, and in 1971 was to be 271. Service to curriculum bodies and research in the curriculum area occupied the greatest amount of research time. He had some misgivings about the sudden expansion of staff and extension of activities:

> In the euphoria of a climate of expectancy, much may be done that is not related to problems of any magnitude, and before adequate thought has been given to those areas where its relevance appears most obvious.[38]

It was as if he feared that the genie he had been busily conjuring up was about to become some uncontrollable and rampaging dragon. In the event, the monster did not materialize, though the genie of educational research did not always evaluate its own activities with exacting intelligence and practical wisdom.

---

[37] The conference was organized by a group from Macquarie University, and at the general meeting, H.W.S. Philp, Professor of Education, and M.J. Dunkin, both from that university, became respectively first president and secretary of the AARE. R.A. Dershimer, the Executive Officer of the American Educational Research Association (AERA) gave a paper at the meeting, as did J.P. Keeves who was to succeed Radford in 1977 as Director of the ACER.

[38] W.C. Radford, Old and new horizons: Hopes and fears, p.9, ACER archives, series 54, item 210.

Research into Education in Australia 1972

There was another flurry of activity two years later. In 1972, Radford again made a survey of educational research in Australia. He was commissioned by AACRDE to report on the existing state, and to venture a prediction about the future development, of research in education and the training of research workers. In August 1972, he presented a brief paper on his on-going work at the ANZAAS Congress in Sydney. His final report was presented early in 1973, and was subsequently published as *Research into Education in Australia 1972*. In April 1973 he organized a seminar on the training of research workers in education.

Radford's survey for AACRDE, in which he was assisted by R. McDowell, was again a collection, by interviews and lengthy questionnaires, of information about the numbers of people involved in research, the work they were doing, and the kind of training they had had or were currently undergoing.

Radford wrote that what Fattu had called in 1960 'the formula of innovation by accidental discovery' was being 'replaced by innovation systematically developed from an increasing body of knowledge'.[39] Australian progress in this direction was slow but noticeable. Educational research and development were 'immeasurably better off' in 1972 than in 1962, and 'far better off than ever before in Australia'.[40] But the research effort was still very small in relation to the size of the educational enterprise in Australia and to the task that had to be done.

He found that the research agencies in Australia were steadily increasing. Besides the universities, state departments, Australian College of Education, and the ACER, there were advanced education boards, examination boards, Catholic education offices, the

---

[39] W.C. Radford, *Research into Education in Australia 1972*, (AACRDE Report No.1), Canberra: AGPS, 1973, p.5.
For Fattu's remark, see N.A. Fattu, A survey of educational research at selected universities, In Phi Delta Kappa, *First Annual Symposium on Educational Research*, Bloomington, In.: 1960, p.21.

[40] Radford, *Research into Education in Australia 1972*, p.116.

Australian Vice-Chancellors Committee, Australian Universities Commission, Australian Commission on Advanced Education, and teachers unions which undertook or commissioned research relating to their interests. The universities nevertheless were still by far the main contributors. The survey revealed, though it was not explicitly stated, that, if it had not been for the universities' traditional interest in undertaking research and their acceptance of education as one of their fields of study, the Australian contribution to educational research would be a somewhat meagre one. The other major contributors, the research branches of the state departments, were concerned principally with servicing curriculum committees and related curriculum development, and with testing programs and test development. Other reasonably important activities undertaken by them were demographic studies to predict enrolments and related matters on the building and siting of schools.

The report estimated that there were about the equivalent of 800 full-time research workers in Australia in 1972, a considerable increase over the 150 recorded for the year 1963 in *A Field of Many Tillings*, and that, on existing recruiting policies, the number might be expected to double within the next five years. Radford was unwilling to recommend priorities for research. He suggested instead that 'the common sense and perceptiveness of the workers should be backed'[41], and that there should be more communication between workers in the same area and a closer association between them and both the policy makers and the classroom teachers. Collaboration between universities and centres for full-time research, such as the ACER, was recommended, not only in the interest of possibly producing some integrated research but also to provide internship experience for students training to become research workers.

More opportunity for full-time study and internship experience was desirable for trainee researchers. This might be brought about by the provision of postgraduate research awards with high age limits, and by encouraging employers to grant leave to graduate students to devote more time to their studies. Radford suggested the need for refresher courses and workshops for experienced research workers, especially to develop competence in curriculum development, in the economics of education, and in research design—three areas currently of increasing importance. He was interested also in the possibility of developing more opportunities for full-time careers in research. Better salary scales and greater permanence of employment in research branches would help to stabilize and raise the quality of work in the state education departments; in addition, the establishment of centres or institutes of educational research in universities or in conjunction with the ACER, staffed by full-time researchers and specializing in a particular area, would give Australian educational research a powerful thrust and greatly increase opportunities for careers in educational research.

---

[41] ibid., p.127.

Redefining the ACER's Role

In 1977, the reflection and discussion on research that Radford had pursued during the whole period of his directorate were continued by the new Director, J.P. Keeves. In three successive annual reports, 1977 to 1979, he explored the state of current educational research and the role of the ACER. The whole of his research life from 1962 had been spent with the ACER, except for five years studying for doctoral degrees at the Australian National University and the University of Stockholm. He was therefore intimately acquainted with the ACER's activities and with Radford's ideas. His doctoral work, undertaken in a research school of social sciences, brought him into serious contact with the perspectives of a number of social science disciplines other than education, and he applied this experience in his thinking about the research tasks of the ACER.

Since 1970, educational research outside the ACER had greatly expanded. The Commonwealth Government had set up three new bodies with strong interests in research and development: AACRDE, renamed the Education Research and Development Committee (ERDC) of which S.S. Dunn had become the full-time head; the Curriculum Development Centre (CDC) which had absorbed the ACER's curriculum interests; and the Schools Commission which was interested in undertaking or supporting evaluation studies of its own programs and developmental work by teachers.

Keeves saw these national institutions and other state departments that had recently come into being, and for which Radford and the ACER had helped to develop a climate, as a challenge to the ACER and a cause of uncertainty among the ACER's staff as he and they sought to redefine their role and re-examine the balance of their research and service activities. It might be that the ACER's interest should move from pioneering in curriculum development to curriculum evaluation, and that a lessened interest in the promotion and publication of research generally in Australia might be balanced by greater productivity at the ACER's headquarters and the maintenance of strong informal links throughout the Australian research community.

The ACER's two main areas of research activity had long been those of measurement and evaluation, and learning and teaching. It had touched on but not continued to pursue vigorously the area of social foundations of education. Keeves suggested the need for further work in this area. Guidelines or policy statements for programs of research should be developed in each of the three areas, indicating what needed to be done and how the work might be financed. To assist in such a task, advisory committees with a wide internal and external membership should be established.

In the new area of social foundations 'one of considerable importance where little quality research is currently being undertaken in Australia'[42], staff would be needed with training in a broad range of social sciences who could ask and seek answers to critical questions about educational and social policies, and the evaluation of formal and informal institutional practices. In the learning and teaching area, the priorities should be the study of language learning, concept development, (with both of which the ACER had had a long connection), curriculum evaluation, and teaching for mastery learning. The measurement and evaluation area would continue to produce special purpose tests which the ACER had contracted to supply; to develop new tests in current areas of interest; to undertake a maintenance program to satisfy 'the urgent need to revise and renorm many of the key educational and psychological tests which the Council is currently marketing'[43]; and to develop validation studies of the ACER's tests of cognitive ability and scholastic aptitude. Four units to provide services to each of the research areas and to outside clients were also desirable; they would consist of survey, statistical analysis and psychological measurement, library and information, and advisory services.

---

[42] Australian Council for Educational Research, *Forty-seventh Annual Report 1976–77*. Hawthorn, Vic.: 1977, p.14.

[43] ibid., p.16.

The Council accepted Keeves's basic outline and the ACER was restructured into three broad divisions with three service units, the proposed survey and statistical units being combined into one. The advisory committees in each area met and reported in time for inclusion in the annual report in 1979. Of particular interest was the statement of the social foundations committee which produced a rationale that, it suggested, could have characterized all three divisions. It distinguished between policy and discipline research. Policy research originates in the world of action and its results are directed towards use in practice. It is concerned with variables that can be changed with appropriate resources and with the ways of changing them. It may be policy-dictated research concerned essentially with evaluating educational policies and programs, or policy-defining research which aims to provide information on which policy decisions not yet taken can be more confidently based. Discipline research is concerned with the advancement of knowledge and the development of theory independent of educational action, though its findings may have important implications for action. Policy research is central to the social foundations area, but discipline research may be related to it in important ways by sharing a common theoretical model or by further analyses of policy research data aimed at interesting 'substantive or methodological issues incidental to the main purpose of the policy research'.[44]

There was a strong suggestion here that the ACER's work should be characterized by policy-type research, with some attention where convenient to related discipline research. This, however, had always been the case. The position had never been expressed with as much sophistication as the 1979 advisory committees were able to command, but it was precisely what the ACER had been trying to do for the past 50 years.

[44] Australian Council for Educational Research, *Forty-ninth Annual Report 1978–79*, Hawthorn, Vic.: 1979, p.32. The basic statement was prepared by the head of the division, an Assistant Director of the ACER, T.H. Williams, who made use of the distinction between policy and discipline research made in J.S. Coleman, *Policy Research in the Social Sciences*, Morristown, NJ: General Learning Press, 1972.

8

INFORMATION, DEVELOPMENT, AND ANALYSIS IN THE 1960s AND 1970s

Publications

In discharging its clearing-house function for Australian education, the ACER's most notable medium of information and analysis was the *Review of Education in Australia*, of which the first volume was published in 1938 and the second in 1940. After the war, three more volumes appeared each covering a span of six to eight years.

The first post-war volume, *Review of Education in Australia 1940–1948*, was put together mainly by Daphne Waddington under Radford's direction. It was an extensive compilation of detailed information about the Australian educational systems and developments throughout Australia since 1940. Keats added to it a careful and interpretative chapter on the variation in educational expenditure by the six Australian States during the ten years 1936–46. The fourth and fifth volumes of the series were also produced under Radford's general direction, and followed much the same pattern as the third. *Review of Education in Australia 1948–1954* was compiled principally by R.M. McDonnell and recorded mainly the administrative changes of the preceding six years. The section on the costs of education, continuing Keats's work in the preceding volume and covering a ten-year period, 1944–53, was done by the ACER's newly appointed accountant. Phyllis Staurenghi was a lively arts and commerce graduate from the University of Melbourne with a particular interest in mathematics, and some years of experience in accountancy and statistical work. She was appointed in 1953 and has continued to the present to be the ACER's main financial officer. For the fifth volume, *Review of Education in Australia 1955–1962*, a considerable number of the staff were involved. It recorded most of what Radford referred to as 'the major currents of our time': a rapid expansion in secondary education and an interest in its reform; a great increase in university enrolments; and the diversification of facilities and curricula in technical education.

No further volumes of the *Review* were published despite a Council decision in 1964 that it should henceforth appear every five years and should be a more interpretative history of the period. The tendency was to move into the publication of three new kinds of periodical: a general one that would be more interpretative and more frequent than the past *Reviews*; another general one that would take articles of quality in educational research and scholarship; and several specialized and general ones, that would provide news and advice from the ACER to various kinds of clients and readers. The 1960s, in particular, was a time in which the journal mania spread.

The function of the *Review of Education in Australia* was taken over in 1967 by a new ACER periodical, the *Quarterly Review of Australian Education*. The *Quarterly*, which professed 'the aim of treating objectively and in some detail particular areas in which significant change has taken place'[1], was edited by Fitzgerald who contributed most of the material for the pilot edition and the four numbers in the first volume. It usually dealt with one topic, providing substantial fact and interpretation. It developed from a slim, stapled, multigraph quarto report of a single article, to a solid typeset booklet containing an extended analysis of some topical question. In this latter form, still under Fitzgerald's editorship, it changed its name in 1974 to *Australian Education Review* and was published about four times a year.

Another attempt was made to present general educational news, with the publication in 1968 of a small short-lived mimeographed monthly. It was called *Chronicle of Australian Education* and was also edited by Fitzgerald. Much of its material was taken from daily newspapers and official reports. It had little appeal and, after a year's trial, it was discontinued.

The *Australian Journal of Education* was started in 1957 as a scholarly journal 'intended to represent the best thought, scholarship, and research from all who are professionally interested in education in Australia', and to provide opportunity 'for the dissemination of information concerning significant developments in educational practice and research'.[2] The New South Wales Institute for Educational Research in 1935 had discussed the possibility of its establishing a quarterly magazine and, in 1938, raised the matter of its publishing an *Australian Journal of Educational Research* with the ACER's executive. In 1939, the ACER resolved that such a journal should be published and that the ACER would subsidize it to the extent of £100 a year. The Institute agreed to undertake the publication and, in that year, appointed H.S. Wyndham editor, and C.A. Gibb managing editor. The journal was stillborn. In 1940, the NSWIER decided 'that in view of the national crisis, the publication of the *Journal of Educational Research* be held over'. When the matter was raised again in 1946 after the war, Gibb investigated possible prices for printing and the matter was deferred indefinitely.[3] In 1950, the professors of education at their annual conference expressed an interest in the establishment of a journal and, subsequently, in 1953 commissioned F.J. Schonell, who was then Professor of Education at the University of Queensland and had been the principal advocate for a journal, to raise the matter with the ACER and seek its support.[4] The executive expressed support for the proposal and offered a financial guarantee for the first three issues but the journal did not eventuate. Meanwhile the Victorian Institute of Educational Research resolved in 1954 to establish a *Journal of Education*. It appeared in 1955 under the editorship of L.W. Shears, and the ACER agreed to underwrite it. The journal ran from July 1954 to November 1956. The VIER was interested that the journal should have an Australian content and circulation, and approached the Council in 1955 with a request that the ACER should establish an *Australian Journal of Education* incorporating the Victorian publication. The Council agreed, and in 1956 appointed W.F. Connell, Professor of Education at the University of Sydney, editor of the new journal with Radford as business manager.[5] The first number appeared in April 1957 with an acknowledgment to the pioneering work of the VIER. Connell continued as editor for 16 years, and was succeeded by R.L. Debus, his assistant editor at the University of Sydney. The journal was strongly supported by the Institutes, each of which supplied an assistant editor, and its circulation grew steadily to 2000 in 1960, and 5500 in 1972. In 1975 the Australian College of Education, whose members were subscribers to the *Australian Journal of Education*, started its own periodical, and the circulation of the Journal was approximately halved. Over the years, especially after the establishment of the College's periodical, contributions tended to come mainly from research workers and it became very largely a journal of educational research in Australia.

---

[1] Circular enclosed with *Quarterly Review of Australian Education*, Pilot edition, June 1967.

---

[2] Introduction, *Australian Journal of Education*, 1957, 1(1), 1.

[3] NSWIER, Minutes of Meetings, 29 April 1935, 16 June 1939, 28 June 1940, 19 July 1946, 12 September 1947; Meetings of Executive, 21 November 1938, 15 May 1939, 15 September 1939, 13 June 1940, 10 July 1946, Mitchell Library.

[4] Minutes of Seventh Annual Conference of Professors of Education, August 1953, ACER archives, series 49, item 144.

The *Educational Research Series*, later renamed simply *Research Series*, which from the start had been the ACER's main publication vehicle, continued throughout its history though at a diminished rate. Sixty titles had been published in the first 10 years to 1940; during the following 40 years to 1980, only another 44 were added, bringing the total to 104. Undoubtedly the selection policy was more exacting and the quality of most of the books in the series was much improved in the latter period. Spearritt's and Clark's work on comprehension skills appeared in this series, as also did Keeves's study of environment and achievement.[6] K.F. Collis contributed a perceptive study of Piagetian theory related to the learning and teaching of elementary mathematics, and Jillian Maling-Keepes produced a seminal and, from the point of view of the ACER's program, timely volume in 1978 in which she endeavoured to describe a framework for evaluation.[7] The series included two useful contemporary sociological studies: R.T. Fitzgerald, P.W. Musgrave, and D.W. Pettit used five case studies of secondary schools in an investigation of school–community relationships, and B.M. Bullivant wrote a detailed ethnographic study of a small religious school.[8] Two interesting volumes on the history of Australian education also appeared: one by R.T. Fitzgerald considered social and educational change between the 1940s and the 1970s, the other by B.K. Hyams looked at teacher education from 1850–1950.[9]

---

[5] Minutes of the ACER executive meeting 5 March 1954; Minutes of the ACER Council meeting, 26–27 August 1954, 26–27 August 1955, 23–24 August 1956.

[6] D. Spearritt, *Listening Comprehension: A Factorial Analysis*, (ACER Research Series No.76), Melbourne: ACER, 1962.
M.L. Clark, *Hierarchical Structure of Comprehension Skills*, 2 vols, (ACER Research Series No.91; No.94), Hawthorn, Vic.: ACER, 1972; 1973.
J.P. Keeves, *Educational Environment and Student Achievement*, (ACER Research Series No.89), Hawthorn, Vic.: ACER, 1972.

The *Research Monograph* series, started in 1978, was similar to the Research Series but was confined to projects undertaken by the ACER, which were reported in full technical detail for the benefit of specialists in the area. A similar kind of publication, the *IEA Monograph Studies*, reported the results of the work undertaken in Australia by the ACER on the science project in connection with the surveys carried out by the International Association for the Evaluation of Educational Achievement (IEA). It was supplemented by *IEA (Australia) Report* which began in 1972. This was a mimeographed occasional publication, each number of which contained a short technical or more general report on some aspect of IEA work.

Another short specialized series was started in 1961 to catch the contemporary interest in secondary education. *Monographs on Secondary Education* consisted of three books: W.F. Connell, *The Foundations of Secondary Education*, 1961; K.S. Cunningham and D.J. Ross, *An Australian School at Work*, 1967; and S.S. Dunn, *Measure-*

---

[7] K.F. Collis, *A Study of Concrete and Formal Operations in School Mathematics: A Piagetian Viewpoint*, (ACER Research Series No.95), Hawthorn, Vic.: ACER, 1975.
Jillian Maling Keepes, *Educational Evaluation: Key Characteristics*, (ACER Research Series No.102), Hawthorn, Vic.: ACER, 1978.

[8] R.T. Fitzgerald, P.W. Musgrave, and D.W. Pettit, *Participation in Schools*, (ACER Research Series No.98), Hawthorn, Vic.: ACER, 1976.
B.M. Bullivant, *The Way of Tradition*, (ACER Research Series No.103) Hawthorn, Vic.: ACER, 1978.

[9] R.T. Fitzgerald, *Through a Rear Vision Mirror*, (ACER Research Series No.97) Hawthorn, Vic.: ACER, 1975.
B.K. Hyams, *Teacher Preparation in Australia: A History of its Development from 1850 to 1950*, (ACER Research Series No.104), Hawthorn, Vic.: ACER, 1979

ment and Evaluation in the Secondary School, 1967. The first and the third had very good publication records; yet the second was, in many ways, the most interesting and original of the trio. It was an account of a unique comprehensive school in Melbourne run by a sensitive and talented headmistress, D.J. Ross, from 1939 to 1955. It described in authentic detail one of Australia's few important educational experiments, the conduct of a large school as a democratic community.

The remaining series and periodicals started by the ACER were concerned with publicizing and explaining the ACER's activities. A start was made, in 1945, with the issue of *Information Bulletins* usually on aspects of the ACER's work that were of interest to a limited audience. Fifty *Bulletins* were issued in the following 23 years before the series came to an end. A start was made, in 1965, with a *Research Bulletin*, by publishing *Dependent Clauses in Latin* by H.A.K. Hunt and J.P. Keeves, which dealt with an experiment in programmed learning applied to middle-school Latin. The bulletin was unique. No further volume ever appeared in the series. In the same year, a *Memorandum Series* made its appearance. Nine works were published in the series which, if it was different from the *Information Bulletin* and *Research Bulletin* series, had such a fine margin of difference as to be indistinguishable from them by anyone not privy to the publisher's mind. In due course, the management, too, confessed in 1969 that 'it was becoming difficult to decide what went into each series', and decided to consolidate the three series into a new one to be called the *Occasional Paper* series. By 1980, the 15 numbers which had appeared were aimed primarily at research workers and dealt with more restricted topics than those in the *Research Monograph* series.

When the test division was established in 1947, it issued *Test News*. This was an occasional publication which indicated the state of current holdings and provided information about new tests. It was replaced in 1963 by a twice-yearly *Bulletin for Psychologists* which has continued to the present time with a current circulation of about 3000. A sizable portion of the ACER's test sales was to psychologists in universities, government departments, and private practice. The new journal was part of the ACER's service to them, informing them of new tests, providing normative data, mentioning the ACER's current activities, and including appropriate short articles and reviews. Throughout its whole existence, it has been edited by Diana Bradshaw who joined the ACER initially in 1944 as Diana Rees, a seconded teacher from New South Wales. She worked with her future husband, G.D. Bradshaw, on test construction and did the research assistant's usual wide range of activities until the end of 1946. She returned to the ACER part-time in 1961 and, when the ACER's advisory services became a small separate unit in 1964, she became part of it to deal with the psychological side. The service officers had to develop a depth of knowledge about the capabilities of a wide variety of tests and to provide advice to psychologists on tests relevant to the projects they might be interested in undertaking. Work in the psychological field was matched in the educational area by an educational advisory service. It, too, became responsible for a twice-yearly publication, *set: Research Information for Teachers*, which began with a special issue in August 1979. The object of *set* was to provide, in loose-leaf form, a set of pamphlets of research news that would help teachers with practical classroom problems. *set* was first published in New Zealand by the NZCER in 1974, and the ACER negotiated a joint production to commence regular publication in 1980.

A general *ACER Newsletter* was established in 1969. It has continued to be published about three times a year up to the present time, with a current circulation of 13 000. It was designed to make the ACER's activities more widely known and included information on items such as major events at the ACER, staff appointments, new curriculum materials, tests of interest to teachers, and aspects of research and evaluation studies.

In addition to the serials, the ACER has produced a substantial list of general publications. Some have been records of significant speeches, such as the 1979 Radford Memorial Lecture of the AARE by the ACER's president, P.H. Karmel, or reports of significant conferences with which the ACER was associated. The earliest of the conference reports was that on the NEF Conference in 1937, *Education for Complete Living*; a later widely read report was G.W. Bassett, *Each One Is Different*, an account of a conference on individual differences held in 1962. The general publications have also included practical handbooks. *A Word List for Australian Schools*, a small pamphlet listing the 7000 words most used by Australian children aged 7 to 13, was put together by Radford and published in 1960 to encourage individuals to improve their vocabulary. It was intended for use by students, and about 70 000 copies were sold. S.S. Dunn, *Testing in the Primary School* was a summary, written in 1962, of a lecture course given to the VIER. J.A. Richardson and J.A. Hart, *Books for the Retarded Reader*, first published in 1959, was a teachers guide and annotated bibliography which went through many editions with slight changes in authorship and proved to be outstandingly popular. Several other publications were reports for which another agency had made a grant towards the work and publication: for example, E.K. Hart, *A Directory of Philanthropic Trusts in Australia*, 1968, sponsored by the Myer Foundation.

Most of the ACER's book publications have had a print run of 1000 copies or less. A few have had a considerably larger distribution. The most popular, with the approximate number of copies sold, have been:

J.A. Richardson et al., *Books for the Retarded Reader*	43 000
R.F. Butts, *Assumptions Underlying Australian Education*	16 000
S.S. Dunn, *Testing in the Primary School*	9 000
G.W. Bassett, *Each One Is Different*	6 000
W.F. Connell, *The Foundations of Secondary Education*	5 000
W.F. Connell et al., *Growing up in an Australian City*	4 000
S.S. Dunn, *Measurement and Evaluation in Secondary Schools*	4 000
R.W.B. Jackson, *Emergent Needs in Australian Education*	4 000

Emergent Needs in Australian Education

In 1960 the ACER tried once more, but not again during the next 20 years, to get a leading overseas educator to study and make a sustained comment on Australian education. The Carnegie Corporation provided a grant for a Canadian, R.W.B. Jackson, Professor of Educational Research at the University of Toronto, to visit Australia for four months. The ACER was his headquarters and he managed to visit all States during the course of his stay. His short report, *Emergent Needs in Australian Education*, was published in Canada in 1961, and subsequently by the ACER in 1962.

He found that 'the system in vogue is more nearly attuned to world and industrial needs of the beginning of the present century than to those of 1961 and the critical decades which lie ahead'.[10] There were too many large classes at all levels, too many ill-prepared teachers, too much sub-standard accommodation and equipment, insufficient public interest and participation in education, too much centralization, and little evidence of an agreed-on plan for future development. He was much exercised with the idea that vast social and technological changes were in the offing, and that schools were going to be subject to very considerable change in the near future. He suggested the need in educational research for 'imaginative long-term planning of studies of crucial significance'.[11] Research, he thought, in Australia and elsewhere, had been 'bumbling along well to the rear, picking up stray problems to digest, and conducting sporadic and disconnected studies', instead of anticipating the important questions and devising means to solve them.[12] Australian research suffered, however, as also did Canadian, from chronic financial malnutrition and from inability to communicate research findings to the classroom teacher.

One director-general was 'surprised and unhappy' to read of Jackson's criticism[13], but most of them, while remarking on his exaggeration and lack of precise knowledge of Australian education, accepted his report as a useful document. The ACER found it enough in demand to justify a reprint, and Radford, though not accepting some of Jackson's ideas on education, found himself in basic sympathy with his views on educational research and was to echo them in his own statements for many years to come.

SRA, WARDS, and Peabody

Science Research Associates (SRA), a firm in Chicago which marketed tests and educational materials and provided testing and guidance services, developed kits for schools known as 'reading laboratories'. Dunn, always on the lookout for educationally useful and saleable articles, visited SRA headquarters in 1956, and became attracted by their products. In mid-1961, a three-year agreement was reached with SRA for the ACER to print part of the elementary and secondary reading laboratories and market them in Australia on a royalty basis. The kits were an immediate success. 'We at SRA', the executive vice-president wrote a year later, 'have been very pleased with the excellent work you have done in distributing our educational materials to the schools in Australia', but he confessed to only a slight knowledge of the ACER and asked for some 'literature which describes your history, purposes, etc.'.[14] Information was sent and the association flourished. Within the next few years, the ACER added several other items in reading, spelling, and reporting to the list of SRA materials that it distributed.

---

[10] R.W.B. Jackson, *Emergent Needs in Australian Education*, Melbourne: ACER, 1962, p.31.

[11] ibid., p.27.

[12] ibid., p.27.

[13] E. Mander Jones to W.C. Radford, 20 February 1961, ACER archives, series 13, vol.170.

There was from the beginning of the 1960s a noticeably increased interest in attending to individual needs and capacities in education. It was a movement felt in several western countries and was translated in various ways into educational thought and practice. In Australia, the ACER promoted it. Its Director and Assistant Director referred frequently to the need to individualize educational practices, and the ACER in 1962 sponsored a significant conference on individual differences between children and their implications for primary education. The SRA reading laboratories in Dunn's view would make 'an important contribution to our educational system because of their emphasis on individual progress'.[15]

An SRA reading laboratory contained three groups of items:

(a) power builders, a series of cards containing interesting stories with something of a social science content, and exercises graded from lowest to highest reading levels, ten levels in all;
(b) rate builders, a series of cards for reading in a restricted time, containing short passages with comprehension exercises;
(c) listening skill builders with a similar content, contained in the teachers handbook, and read to the class by the teacher.

These were supplemented by a teachers handbook, and student record books. A course with the SRA laboratory was designed to last for 12 weeks and cover a total of 40 classroom periods.

---

[14] J. Kough to President, ACER, 15 November 1962, ACER archives, series 28, vol. 196, part 2.

[15] S.S. Dunn to J. Kough, 17 December 1962, ACER archives, series 28, vol. 196, part 2.

Before the ACER made its distribution agreement with SRA, it arranged for both the elementary and secondary sections of the reading laboratory to be tried out in three separate States. Evidence was put together on the Western Australian and Victorian trials and, in a general brochure sent to all teachers colleges, the ACER declared, concerning the materials, that it had 'no hesitation in recommending them generally'. During the next few years, further evaluations were made on the various other kits that the ACER handled for SRA[16], and in each State several teachers and research branches conducted a few minor research studies. The Western Australian Education Department was at this time working on its own reading improvement scheme, adapted from the SRA secondary kit and subsequently called Western Australian Reading Development Scheme (WARDS), which in 1961 it delivered to the ACER for publication. Dunn, slightly abashed when the delivery was made, wrote:

> 'A wooden crate has arrived in my room . . . In order to save any possible embarrassment with SRA, I propose to indicate that the material has been prepared by the Department of Education in Western Australia and is distributed by the ACER, rather than use the words 'published by the ACER'.[17]

It soon became apparent that much of the material of the SRA laboratories was in the idiom and vocabulary of the United States and needed adjusting for Australian audiences. Much exhilarated after a visit to SRA in Chicago early in 1963, during which modification of the material for Australian schools seemed to be agreed on, Dunn wrote to Radford, 'We are in for *big* business. We have to be prepared to think in terms of sales rising rapidly to say £1 000 000 in the near future'.[18] But the hopes were premature.

---

[16] W.D. Neal to S.S. Dunn, ACER archives, series 13, vol.170; Brochure from M.L. Clark to all teachers colleges, 29 October 1959, ACER archives, series 10, vol.171, part 2; J.P. Keeves, *A Report on Certain New Educational Materials*, (Special Distribution Report No.4), Hawthorn, Vic.: ACER, 1963.

[17] S.S. Dunn to W.D Neal, 30 June 1961, ACER archives, series 13, vol.170.

[18] Correspondence with S.S. Dunn overseas, 1963, ACER archives, series 54, item 72.

For several years, Dunn negotiated with SRA to secure the right to revise and print Australian editions of the laboratories. SRA, interestingly, read the ACER a mild cautionary lesson to the effect that, in its experience, non-profit organizations that became involved in the production of tests and materials available from commercial houses found, after a time, that their:

> original goals have shifted and the not-for-profit organization has become a vested interest in one type of publication or services. As soon as that happens, they lose part of their educational impact.[19]

Later in 1963, SRA merged with IBM, and the relationship between the ACER and SRA began to change considerably.

A local publisher in New South Wales in 1963 produced pads of record sheets suitable for use with the SRA laboratories and undercut the ACER's market. The ACER took legal action against the interloper and managed to prevent the infringement but, as the Australian Department of Customs and Excise was proposing to charge a heavy duty on imported record books, the ACER became understandably anxious to gain the right from SRA to print them in Australia. However, throughout the ensuing, occasionally barbed correspondence, SRA would grant only short-term rights for various emergencies. Fortunately the Department of Customs agreed to postpone the action until the 1966–67 financial year. During 1966, SRA set up its own office in Sydney, and the ACER ceased to be their distributor on 1 January 1967.

From the beginning, the SRA reading laboratories were popular with teachers. The ACER reported in 1960 that 'in Western Australia and Victoria sales have been spectacular and we have had difficulty in keeping up with supplies'.[20] The other States were not far behind. By May 1966, the ACER estimated that reading laboratories were in 6142 Australian primary schools. This meant that they had supplied 61 per cent of all primary schools, and probably a similar proportion of secondary schools. The grand total eventually sold was a little more than 13 000 laboratories, with close to two million consumable records books. The cash value of the sales rose from $55 600 in 1960–61 to a peak of $356 000 in 1964–65. For the four years 1963–66, income from SRA sales was between 60 per cent and 69 per cent of the ACER's total sales income. The Christmas edition of the ACER Bulletin under the heading, Talks by Staff Members, reported that Miss O'Donnell in educational services addressed a meeting on the topic, What SRA Labs have Dunn for me, and the Assistant Director spoke on What I have Dunn for SRA Labs. There was no doubt that the SRA interlude from 1961 to 1966 did much for the ACER. It was a considerable and welcome boost to the ACER's finances that was continued at a much diminished rate with the initial marketing of its successor, WARDS.

---

[19] J. Kough to S.S. Dunn, 3 May 1963, ACER archives, series 13, vol.170.

[20] Australian Council for Educational Research, *Thirtieth Annual Report 1959–1960*, Melbourne: ACER, 1960, p.20.

Despite the contact in 1961 with the Western Australian scheme, it took another six years of negotiations before the ACER became its publisher. Agreement broke down in 1962 when the Western Australian educational authorities thought that the ACER's proposed selling price was too high, and they did not take kindly to proposals that its material needed substantial revision and might even be linked, if possible, to SRA material. The scheme was revised and published in 1964 by the Western Australian Education Department, and for two years the ACER acted as a minor sales agent. By 1967, an agreement had been reached that the ACER should become the publisher of a further revision of the kit.[21] It was a popular teaching aid but not all authorities were satisfied. When it became known in New Zealand, it was reviewed by the education department's national adviser on reading who severely criticized the standard of the writing in it and the lack of challenge in its exercises, compared it unfavourably in price and quality with SRA, and recommended against its adoption.[22] WARDS was a reading scheme designed to cater for individual differences in reading among 9- to 12-year-old children. It was intended to be used not as a complete course but supplementary to the school's reading program in order to improve the reading skills of comprehension, word knowledge, and speed of reading. The material was carefully graded to enable each child to find and progress from his own level.

---

[21] W.C. Radford to T.L. Robertson, 21 March 1966, ACER archives, series 42, vol.256, part 2.

[22] Ruth Trevor, Report on the Western Australian Reading Development Scheme, Rev. ed., 1967, ACER archives, series 42, vol.256, part 2.

Since 1967 WARDS has been reprinted eight times, again revised, and 10 500 kits have been sold. Interest in the program was greatest between 1968 and 1973, and thereafter slowly declined. After 1975 even the Western Australian Education Department made no significant order for the kits, and suggested that, with the development of audio-visual aids and an emphasis in reading on the use of a wide range of materials, WARDS and similar schemes had become outdated. The ACER's total income from the sale of WARDS was approximately $500 000, and this helped to offset the drop in income when SRA sales were lost.

The other makeweight was the American Guidance Service Inc. (AGS) which marketed Peabody Language Development Kits (PLDK). In 1972 the ACER concluded an agreement with AGS. This put the ACER in touch with another American publisher of educational tests and materials who was willing, like SRA ten years earlier, to accept the ACER as its sole distributor in Australia. The relationship was consistently pleasant and profitable, and helped the ACER's sales income once more to become buoyant. With its connection with SRA, the ACER had begun to enter the jingling world of alphabetically labelled educational materials. AGS developed a wide range beyond its constantly popular PLDK, moving, with the ACER, into the sale of DUSO (Developing Understanding of Self and Others), TAD (Towards Affective Development), Keymath Diagnostic Arithmetic Test, and STEP (Systematic Training for Effective Parenting) which, the president of AGS predicted, would have 'the most positive grass-roots' effect in Australia.[23] STEP brought the ACER into contact with parent, social welfare, and adult education groups, and did prove to be a very popular item among the materials sold by the ACER.

Publication and Sales Policies

Until about 1960, sales by the ACER had consisted mostly of tests and serial publications and, although test sales had considerably increased in the 1950s, little profit had as yet resulted from either line of merchandise. The SRA connection was the beginning of a new era. With it, the ACER began extensively to sell curriculum materials. The move was a very popular one. It proved not to be difficult to interest teachers in sets of individualized programs in language and mathematics, and subsequently in other areas. At the same time test policy changed, and the production of test programs in addition to individual tests began to stimulate sales. In the 1970s the greater availability of money from the federal and state governments for school equipment helped to strengthen the established trend.

---

[23] J.P. Yackel to P. Jeffery, 18 April 1977, ACER correspondence with American Guidance Service.

The ACER was not an indiscriminate distributor of materials, bu was necessarily confined to those for which it was able to secure the agency. It made an effort to maintain its ideal of service to Australian education, by trying out materials in classrooms in various States before putting them on the Australian market; and it maintained a vigorous educational advisory service which kept in touch both with teachers and with the publisher of the educationa materials it was distributing. The ACER's object was to find ou what the teachers wanted and to try to check that what it was supplying was educationally sound. One important effect of its entry into the materials market was to ensure that whatever influence i had on education through its sales would be more evenly spread throughout Australia. Sales of tests had not been evenly distributed; New South Wales had, out of proportion, been by far the bigges customer. The newly developing market for educational material was more balanced, and the ACER's long-established practice o delivering goods to all parts of Australia at the same cost price wa designed to encourage geographically distant customers. Th ACER's officer in charge of distribution services, E. McIlroy, wrote to one of his main suppliers in 1975 that 'sales income from the separate States is very close to the ratio of population . . . On a commercial basis our influence is therefore evenly distributed'.[24]

How has the publication and sales policy of the ACER fitted th research and service function of the institution? A brief answe would be, moderately well. Yet it has been characterized by *ad ho* activities as has the ACER's research work. Most of the book published by the ACER have been volumes not planned or commis sioned by the ACER but offered by authors because their work involved some aspect of educational research. By publishing work which it judged to be of good standard, the ACER undoubtedly provided a useful service to Australian educational writers and researchers. Its occasional attempts to give some direction to Australian writers did not prove a success. Its secondary education series, for example, was not able to get beyond its first three volumes. The ACER did, however, in its various series and its general publications, manage continuously to make known the results of its own research work.

---

[24] E. McIlroy to J.P. Yackel, 19 December 1975, ACER correspondence wit American Guidance Service.

Its book sales with a few exceptions have not reached large numbers of readers, but they have probably reached many of the relevant ones. From the beginning it adopted a generous policy of distributing large numbers of complimentary copies. Of the first volume in the Educational Research Series, C. Fenner and A.G. Paull, *Individual Education*, 365 copies were distributed free out of 1000 printed. In many others in the series, more than half the stock was given away. For example, 800 out of 1000 copies of D.B. Copland, *Training for Business* were complimentary copies and, in the case of the reports on the three main research programs in the 1930s, the standardization of arithmetic, reading, and intelligence tests, out of printings of 750, 501, and 500 respectively, 425, 279, and 286 were given away. In later years the number of recipients of complimentary copies settled down for most books at about 200. The practice ensured that, in each State, the principal educational administrators, teacher educators, organizers of research, and all educational libraries regularly received the ACER's publications. This was, clearly, a significant service to Australian educators. The widespread sale of tests and, since about 1960, educational materials was similarly a useful service, providing for teachers good products of the kinds of aids and instruments that they felt they needed. In selling materials packaged by other producers, however, the ACER had little possibility to relate its own research to the materials it was channelling into the classrooms. A decided change occurred when it began to research and design its own curriculum materials. A link between research and dissemination, that Radford saw to be necessary in *A Field for Many Tillings*, was then established. The degree of effectiveness of the link was to be tested when the outcomes of programs such as the Individual Mathematics Programme, Junior Sec-

R

ondary Science Project and Australian Science Education Project were bought and used by the schools.

In the dissemination of research information to professional colleagues, the ACER successfully used two channels. Its own specialized serial publications effectively presented and discussed the techniques and results of research in which the staff was involved; and opportunity was taken by the staff at conferences, particularly those of the AARE, the Australian Psychological Society, and the State Institutes of Educational Research, to present appropriate papers to their colleagues. These avenues were sometimes supplemented by *ad hoc* workshops or conferences in areas of particular relevance held at the ACER or elsewhere with ACER staff in attendance.

From the time when the test division was established in 1947, there was a continual debate on the respective roles and importance of the commercial and academic sides of the ACER's activities. Cunningham thought that the test division should be self-supporting. Dunn was inclined to think that it should also be independent. It became apparent in the 1960s that the commercial activities, which then included the sale of tests, educational materials, and books, were not only self-supporting; they were needed to support the ACER as a whole.

An important associated question came to the fore. Who were the ACER's customers? Before World War II, the ACER was interested in answering queries from individual schools and teachers, but its publications and its main consultations were with educational administrators in government departments. The subsequent development of the test division began slowly to change the distribution pattern. Individual psychologists and an increasing number of teachers became part of the list of customers for tests. When in the 1960s the ACER began to sell educational materials, it increased its sales to government departments but it also multiplied its contacts, through sales and consultation, with teachers. The question then arose: if the ACER were to continue its long-standing interest in educational reform and reconstruction, should it not cater much more deliberately for teachers' needs, and start to regard teachers as its direct and most important customers?

In 1964 the Director published his tentative analysis of the process of innovation, moving from basic research through to eventual dissemination. He thought that the ACER's main function lay at the originating end, and that of the state education departments with the dissemination process. In his 1967–68 annual report, consistently with that view, he did not see the ACER's publication and sales services as an integral part of an overall innovatory policy linking all of the ACER's activities. He could see no reason to vary 'the policy that has guided the ACER publication in the past', and thought that sales policy should essentially be that of providing materials which appeared to meet a need and which other agents in Australia did not supply. Tests, he hoped, would continue largely to be an ACER monopoly.

As the ACER became more closely involved in the production as well as the sale of educational materials, opinion about the nature of innovation and dissemination was steadily revised in line with more recent overseas thought. There was an inclination towards the view that the development of innovatory practices and the dissemination of them was not a sequential but an intimately linked process. Teachers, consequently, were invited by the ACER to take part more extensively than before in the whole process of planning, developing, and testing new materials. By the early 1970s, there was a beginning of a move towards the construction of school-based curricula through which teachers in several States gained much more influence over the content of what was taught in their schools. In consequence, there was a need for them to learn much more about curriculum construction and the evaluation and appropriate uses of new materials. This was an educational change that the ACER through its curriculum programs, its manuals that accompanied its materials, its handbooks for teachers, and its educational advisory service had helped to create. To what extent was it prepared to regard the new status of teachers as one to which it should make a major response? Should it regard teachers seriously as its main customers and adapt its work and its products to their grass-roots requirements? These remained unanswered questions.

Discussions took place, in 1977 and 1978 at staff and executive meetings, on the nature of dissemination and the ACER's role in it. The question was raised as to what groups should be the key targets of the ACER's dissemination efforts. Was it possible to concentrate on clients who would also become agents for the further dissemination of ideas and materials, and through whom a strong link could be built up between the ACER and the users of its products? If the main clients and users were teachers, who were the most likely agents of change among them and how were they to be selected? At a staff meeting in 1978, the function within the ACER of the publications, sales, and services sections was extensively discussed with no resolution of the situation. The representative of the educational advisory services pointed out that teachers wanted readily understandable and somewhat unsophisticated instruments and materials, and that by producing such items the ACER could 'ease the practitioners into improved practices'.[25] It was argued that, if classroom teachers were to be regarded as the ACER's main clients, the thrust of research and production as well as publication and sales would have to be noticeably altered. The development of *set* was a move in the direction of linking research more closely with the interests of classroom teachers. If the commercial wing was to be more than something which merely filled the gaps, informed educators of the ACER's activities, and made profits to help finance research activities largely unconnected with it, if, in effect, it was to become 'a legitimate, respectable, and worthwhile adjunct to an organization which includes among its aims the development of Australian education', its work would have to be integrated more closely into the ACER's fundamental objectives and the ACER's activities would have to take more account of the changed nature of the clientele it had built up by the end of the 1970s.[26]

Conferences on Primary School Teaching

The sale of materials packaged by other organizations such as the SRA reading laboratories was followed fairly promptly by efforts to produce, through the ACER, Australian materials in areas of particular need.

An important preliminary to the ACER's entry into the world of curriculum development was a small six-day conference held at

---

[25] P. Jeffery, Does ACER provide adequate services to the customer? Paper at ACER Quarterly Staff Meeting, 8 September 1978.

[26] ibid., p.3.
See also P. Jeffery, J.K. Matthews, and K.J. Piper, Dissemination of ACER research, ACER Executive Meeting, 18 January 1978, Attachment 6.
J.P. Keeves, The diffusion of useful knowledge in educational research, paper at ACER Quarterly Staff Meeting, 13 March 1980.

Trinity College in the University of Melbourne in 1962 on Individual Differences between Children and their Implications for Primary School Organization. The conference was timely. 'Individualized instruction', a contributor to the Victorian *Teachers Journal* wrote, 'is moving into the primary schools—here an SRA laboratory, there Cuisenaire and Dienes number teaching aids, somewhere else spelling wheels and programmed instruction.'[27]

The 30 participants at the conference included lecturers from universities and teachers colleges, departmental administrators, and teachers from state, Catholic, and other independent schools. It was directed by G.W. Bassett, Professor of Education at the University of Queensland, who put together the report that was published in 1964 under the title *Each One Is Different*.

The participants suggested that primary school grades be abolished and be replaced by classes based on age, in which each child would be taught his basic subjects individually and a wide range of performance would be expected and accepted. Some of the implications of that approach for curriculum development, teaching methods, testing, recording, and research were briefly analysed. One of the emphases at the conference was on the desirability of producing teaching materials that were sequential, carefully graded, and self-instructional. That was the kind of material that was to be found in the SRA laboratories. The report was widely read during the next 10 years and helped to strengthen the individualizing trend of the 1960s.

Two years after the Trinity College conference, in March 1964, at the request of the state directors-general of education, a small group of curriculum officers from each of the state education departments and New Zealand met for four days at the ACER to consider the reform of mathematics in the primary school. It had been preceded by a conference of curriculum officers in Sydney in 1963, from which the ACER was asked to prepare an analysis of existing aims and practices in the teaching of mathematics throughout Australia. The submission was used as a basic discussion paper. Radford, who chaired the 1964 meeting, pointed out that the ACER was interested in fostering new developments, in furthering research connected with them, and in evaluating outcomes. The conference studied five topics: the aims of primary school mathematics, the implications of the introduction of decimal currency, the use of structured curriculum materials, the provision of concrete and other experiences, and an outline of topics to be included in a course of study. There was a general agreement that a primary school course of study should be known not as arithmetic but as mathematics, and that it should be concerned with beginning the mathematical education of the child. The principal outcome of the conference was a resolve by the curriculum officers to write a manual which would prepare primary school teachers for the changes in ideas, methods, and materials that they were beginning to encounter. J.P. Keeves from the ACER and R.W. Rawlinson from the New South Wales Department of Education prepared the basic outline for it and, with the other curriculum officers at the conference, completed the writing during the following year. The guidebook, *Background in Mathematics*, was published by the education departments in New South Wales and Victoria in 1967.[28] In the revision of mathematics curricula that took place in all States in the late 1960s and early 1970s, it became a standard source of reference.

---

[27] H. Sweete, Review of *Each One is Different*, *Teachers Journal* (Victoria), 1964, 47(9).

The Individual Mathematics Programme

It was not surprising, in view of the conferences on primary school mathematics in which the ACER was involved, that its first undertaking in materials production was in primary mathematics and that it led to the development of a program of individualized teaching in that subject. In the restructuring of the ACER in 1964, a test and materials department was created. The primary mathematics program was its first major venture in materials development.

Three groups of teachers in Victoria had for a few years been developing individualized materials for primary children at Year 3 to 4 level. The ACER called them together at the end of 1964 and, on Dunn's initiative, proposed that they pool their resources into the construction of a kit suitable for all Australian primary school children, commencing with one at the Year 3 to 4 level. One of the teachers, J.F. Izard, was seconded to the ACER and remained for three years on the project. He was to return after a year for a further two years on another project, and eventually, in 1978, became an Assistant Director with responsibility for the ACER's program in measurement and evaluation. Izard had considerable experience as a primary school teacher and before his permanent appointment to the ACER had been a head of department at the State College of Victoria at Coburg.

---

[28] Correspondence relating to a review and revision of primary school mathematics and curriculum, ACER archives, series 42, vol. 224. Papers relating a conference on primary school mathematics, ACER archives, series 54, item 357.

The Individual Mathematics Programme (IMP) was directed by a committee chaired by Dunn and supported by curriculum consultants from each State. Several authors were involved, with Izard playing the central role as executive officer.

This kit consisted of a number of cards and booklets presenting material in which there was an emphasis on understanding pupil activity, self-correction, and progress at an individual's own pace. Children had first to master ideas of pure number, and then took a mastery test on the results of which they proceeded further to enrichment work and the application of number concepts to practical situations, for example with money, time, length, capacity, or they were required to tackle exercises on remedial cards in the areas that they had not yet mastered.

The first kit, IMP Kit B, was published by Rigby of Adelaide, who had helped to plan and finance it, in April 1966. Within the first two years of publication more than 3000 sets were sold. In July of 1966, another conference of curriculum officers was held at the ACER, which took into account the ideas of the 1964 conference and subsequent events, to plan a kit covering Years 5 and 6, to be known as IMP Kit C. Five authors worked part-time on the project for the next three years. Their trial materials were extensively tested on small samples in Queensland, New South Wales, and Victoria, and eventually the material was prepared in three parts for sale between 1969 and 1971. Kit B was revised and metrication packs were introduced subsequently for each set. Kit A for infants classes was under consideration for some time but was never completed.[29]

The IMP exercise was a substantial success. Both Kit B and Kit C were widely sold and the royalties were shared by the ACER and the authors. IMP was an important venture. It was the ACER's first sustained attempt to produce curriculum materials and it demonstrated both positive and negative features. It started from an expressed need and effort by teachers and it continued to use teachers in its construction and trial programs, a procedure important in establishing its credibility and acceptability with the teaching profession. The original teachers' viewpoint was widened by the addition of the ACER's resources and interstate consultants from the curriculum branches of the education departments. This ensured that educational administrators throughout Australia would be likely to be sympathetic to the use of the materials. The kits appeared at a time when there was much interest in individualizing education, in using recently packaged materials, and in reforming the mathematics curriculum with the current upsurge of new ideas on mathematics teaching and the introduction of the metric system into Australia. They incorporated what they thought to be useful and feasible in the new practices and they managed to make a sequential and systematic presentation of mathematical ideas.

---

[29] Correspondence relating to the IMP, ACER archives, series 42, vol. 259.

The production was economical but slow. It relied mostly on part-time workers and in the end was overtaken by other commercial programs. Though it had guidance from curriculum officers, it was not built on previous study of the nature of curriculum construction. In reviewing the IMP project in 1968, the ACER annual report made the point that major curriculum changes needed to be accompanied by a generous supply of new and relevant material. To produce such material, much time and thought had to be put into the construction process. Any further ACER move into the curriculum materials field should be based on the employment of an adequate full-time staff.[30] Since, by the late 1960s, considerable quantities of new curriculum materials were being commercially marketed in Australia and used by teachers, an evaluation of them would be an appropriate task for the ACER and a necessary service to the Australian teaching profession. To undertake such an evaluation or to begin any further program of materials production, the staff had realized that there was a need to fit activities 'into a better theoretical framework in curriculum theory, the theory and practice of school organization, and theories about instruction and learning'.[31]

---

[30] Australian Council for Educational Research, *Thirty-eighth Annual Report 1967–1968*, Hawthorn, Vic.: 1968, pp.72–3.

A further conference was held at the ACER in 1975 to review developments since the 1964 conference. It was attended again by representatives from the state departments, and also by participants from various federal government educational authorities and a special visitor from the Educational Testing Service, Princeton, NJ. The report, P. Jeffery (Ed.), *Primary School Mathematics in Australia: Review and Forecast*, was published by the ACER in 1976 and became a useful reference work in teacher education courses for primary schools. The principal outcome of the conference was the decision to produce, jointly by the ACER and the Curriculum Development Centre (CDC), materials to help in the pre-service and in-service education of teachers. The project was to be called *Mathshop* and the ACER's role was that of evaluating the process and the materials that were to be produced by teams directed by the CDC in various parts of Australia.

The Contribution of S.S. Dunn

The negotiation and initial organization of the ACER's part in IMP and in the Commonwealth Secondary Scholarship Examination (CSSE)—that led to the fruitful sequence of the CSSE, the Tertiary Education Entrance Project (TEEP), and the Australian Scholastic Aptitude Test (ASAT)[32]—were the last important tasks which Dunn undertook at the ACER in his 20 years of continuous service. He resigned at the end of 1965 to become K.S. Cunningham Professor of Education at Monash University. Ten years later, in 1976, he became the full-time chairman of the federal government's Education Research and Development Committee.

Dunn was a spirited and imaginative person with a ready mind, quick to grasp and analyse new ideas and propositions. He was stimulating in discussion, capable of opening up new lines of development and suggesting fresh tasks to be undertaken. He was an administrator and promoter of research rather than an active researcher. He took a substantial part, especially in his earlier years, in the development of tests at the ACER, but his research activities were few and his publication record was modest. He became very knowledgeable in educational and psychological testing and his great achievement was to consolidate and expand the ACER's role in this area. He shared the interest of his former Director, Cunningham, in this field and, like him, was to become, in 1962, chairman of the Australian Branch of the British Psychological Society.

---

[31] Australian Council for Educational Research, *Forty-first Annual Report 1970–1971*, Hawthorn, Vic.: 1971, p.34.

[32] See Chapter 9, under Tests for the Award of Scholarships.

Dunn's energy and drive saw to it that the ACER both cultivated and responded to the need of the Australian educational systems for a wide range of intelligence, achievement, and diagnostic tests. At the same time, individual psychologists, psychological services, and university departments were canvassed, advised, and supplied through the ACER with the requisite testing materials for guidance, teaching, and research. He had an alert perception of what the clients needed and could be persuaded to adopt. For 20 years from 1947 to 1966, he built up the test and sales divisions into the mainstay of the ACER. It was Dunn's efforts which more than anything else, ensured that, from about 1950 on, the ACER came popularly to be regarded by educators as an institution principally concerned with the development and sale of tests. Nevertheless it was Dunn who, by sponsoring SRA and IMP, initiated the ACER's move into the development and sale of curriculum materials. The move was characteristic of him in two ways. He was a pragmatic individual quick to see possibilities and turn an opportunity to advantage. He simply assessed overseas trends in the development of new materials, and applied them to local needs and the ACER's benefit. He was, too, more interested in the educational effects of tests than in their technical perfection, and in their diagnostic value rather than their use as sorting devices. He sought, therefore, to build a closer relationship between testing and ways of improving the content of education and the performance of students. Evaluation was more to his taste than assessment and, in that context, he strongly supported the practice of formative rather than summative evaluation.

He was out-going and sociable in personality, and able readily to react with his colleagues at home and overseas. His staff, nevertheless, found him somewhat dominating at times, and his relationship with Radford was a little uneasy, though always congenial. Radford needed his drive, openness, and vision, and their partnership was a very successful one. Between them, in the first 10 years of Radford's directorship, they managed to assemble a sound and capable staff whose work was respected by educational administrators and other research workers, to establish almost a monopoly in the development and sale of educational and psychological tests in Australia, to foster the first substantial program in Australia for the development of educational materials, and to earn the support and confidence of their governmental clients throughout the whole of Australia who, while not yet willing to increase their direct grant substantially, had begun to request the ACER to perform for them a growing number of tasks under separate contract.

Curriculum Materials for Science

Junior Secondary Science Project

In the early 1960s, the ACER was much involved with the revision of curricula in mathematics and science. Some members of the staff, notably M.L. Turner and J.P. Keeves, were active in the Australian Science Teachers Association and helped to cultivate an interest in recent American projects, such as those of the Physical Sciences Study Committee, Chem Study, and the Biological Sciences Curriculum Study. Turner, who had considerable strength in measurement and statistics, joined the staff in 1958. After Dunn left, he was appointed Assistant to the Director in 1966. He resigned in 1969 to become a reader in the School of Education at La Trobe University.

The Victorian Universities and Schools Examinations Board in 1965 invited the ACER to join with it in a program to prepare materials for a new secondary school course in general science designed for Victoria, the Junior Secondary Science Project (JSSP). Grants were made by three local philanthropic trusts and several large firms, support was given by a local publisher, and the work began at the ACER early in 1966. The Executive Officer was L.G. Dale. The original team consisted of two teachers seconded, one full-time and the other half-time, from the Victorian Education Department and one teacher part-time from an independent school. Several part-time writers, clerical assistants, and field officers were added in the following years. They concentrated initially on producing materials for Year 7 pupils and tried them out in schools in

Victoria, South Australia, and Tasmania. At the beginning of the work, a formative evaluation panel was set up to provide suggestions and guidance during the project. Throughout the work, a close connection was maintained with the schools. Trial materials were tested in them, rewritten, and tested again. Conferences were held with the staff of the co-operating schools and, after the materials were published, workshops for teachers were started on the use of the materials in general science courses. Materials on nine topics were produced for Year 7 students with titles such as: The Sky through the Year, When Substances are Mixed, Energy for Life, and How Hot is It? The product had characteristics similar to those of the IMP. It was described in many reports and in the advertising brochure as having seven features: opportunity for students to proceed at their own rate, a basic learning sequence for all students, additional enrichment material, remedial activities, laboratory and field experience as an integral part of the learning sequence, frequent testing of progress, and flexibility in structure.[33]

Clearly, through their own major curriculum projects, IMP and JSSP, the message that the ACER tried to convey to teachers was that education should be individualized, should be spiced with mastery tests, should provide adequate remedial work, and should, wherever possible, be related to the practical concerns of life.

A complete set of units for Year 7 was published by Cheshire by the end of 1968, and a start was made on Year 8 materials which began to appear in mid-1969. In 1972 a revision of the published JSSP material was begun and new versions became available in 1975.

Australian Science Education Project

In mid-1967 Radford invited representatives of the three south-eastern States, where trial testing had taken place, to consider the future of the JSSP and the possibility of obtaining federal government support for it. The South Australians were critical of both the content and writing of the units, but thought the project worth supporting and agreed to attend a meeting with the representatives of the other States. At a five-day conference in November 1967 on the feasibility of a joint project, the three States decided to ask the Commonwealth Government to provide funds for the ACER to develop materials for Years 7 to 10 suitable for use in all three States. Their case was submitted in March 1968, and the Commonwealth agreed to the proposition.[34]

---

[33] Junior Secondary Science Project, *JSSP General Information*, Melbourne: Cheshire, 1969.

At the meeting of the state ministers of education in the Australian Education Council early in 1969, the Commonwealth invited the other three States to participate. During the course of the year, all States indicated their willingness to join in the project, and the original JSSP was transformed in November 1969 into the Australian Science Education Project (ASEP). A management committee was set up to represent all the States, the Commonwealth, and the ACER, and a central advisory committee and state committees were selected. The Project Director was H.O. Howard, and the Assistant Directors were L.G. Dale, formerly Executive Officer of JSSP, and G.A. Ramsey, who has been a member of the Council of the ACER since 1973. The project was housed at the ACER, full-time staff was appointed to it, and work began on an expanded program in October 1969.

In August 1970 the project, which had accumulated a large staff, moved into the buildings formerly occupied by the Technical Teachers College about three kilometres away, and the ACER, while remaining responsible for its financial management and continuing on the general committee of management, ceased to have any further professional connection with the day-to-day work.

ASEP was the first curriculum project on a national scale and, until that time, the largest producer of curriculum materials. It was a centrally directed concern. The work of designing, writing, rewriting after extensive testing throughout Australia, and producing the materials was done in its Melbourne headquarters. In this matter it differed from the next national curriculum project, Social Education Materials Project (SEMP) which operated through teams of seconded teachers in each State.

The initial planning conference of the Central Advisory Committee in January 1970, organized by Radford and held at Monash University, set the pattern for the development of the ASEP materials. They were arranged around a series of problems which encouraged students to carry through an inquiry to try to solve them. Intellectual skills were given a high priority, and an effort was made to arrange the units in a Piagetian sequence of cognitive development. The materials were written and arranged to enable each individual to move through them at his own pace, and much practical activity was incorporated into them. Their orientation, in effect, followed closely that of the JSSP.

---

[34] Australian Science Education Project. *Report of the Guidelines Conference, Monash University, January 1970*. Hawthorn, Vic.: 1970.
——. *Position Documents: A Summary*. Hawthorn, Vic.: 1972.
——. Correspondence files, ACER archives, series 42, vols 253–4.

The project was completed in March 1974 after four and a half years of work and the expenditure of $1.4 million by the federal and all state governments. Its materials in 47 units were published by the Victorian Government Printer in 1974 and, by the beginning of 1976, some 70 per cent of secondary schools throughout Australia were using some of the materials.

In 1975 J.M. Owen was seconded from Melbourne State College to the ACER and was funded by the CDC to undertake an evaluation of ASEP's dissemination in 1975 and 1976. His report was published in 1978.[35] It emphasized the importance of advocacy groups and teacher involvement for the successful dissemination of innovations. Inspectors, curriculum advisers, and teacher educators, if knowledgeable about and convinced of the importance of an innovation, could prove to be influential advocates of it in face-to-face contact with teachers. Extensive trials in schools and in-service workshops on the materials were also essential. These were the vital ways of getting teachers involved in using the innovation and in trying to understand its rationale and the style of its materials.

The ACER and the Social Science Curriculum

An ambitious project was started in 1966 to construct a set of materials on study skills for classroom use in the primary school. They were to be designed to help pupils to study and learn independently, and it was intended that the materials would make 'the maximum possible provision for individual differences'.[56] A start was made on the analyses of two kinds of skills: graph skills, mainly in geography and social science, 'involving the comprehension and interpretation of those graphs which were likely to be met by pupils at the upper primary and lower secondary levels'; and reference skills for securing information through the use of aids such as encyclopaedias, catalogues, directories, card indexes, and the like. For a period of three years, the Western Australian Education Department seconded teachers to the ACER to work mainly on this project.

---

[35] J.M. Owen, *The Impact of the Australian Science Education Project on Schools*, Canberra: CDC, 1978; see also B.J. Fraser, *Review of Research on Australian Science Education Project*, Canberra: CDC, 1978.

An effort was made to establish a general rationale for the project by fitting the analysis of skills into the kinds of learning hierarchies associated with the work of R.M. Gagné whose analysis of cognitive processes was then popular.[57] Work was undertaken on some aspects of a reference skills kit, but it did not progress very far. More effort was concentrated on a graph skills kit which, confidently promised for 1967, took another seven years. It was completed by 1974 but never published. It had been spoken of as a project which had 'broken new ground' with its careful analysis of skills in ascending order, the attainment of the later and higher ones depending on a mastery of the earlier ones.[58]

In 1967 the Australian Unesco Education Committee, of which Radford was a member and past chairman, held a seminar at the Burwood Teachers College in Victoria, for social science teachers, administrators, teacher educators, and academics. Its purpose was to consider ways of improving the teaching of social science at the secondary school level. For the conference, D.M. Bennett and K.J. Piper canvassed all secondary schools in Australia and produced a substantial document analysing the courses, time allotments, and textbooks in history, geography, social studies, and commerce in all

[56] Memorandum on the ACER Primary Study Skills Project, p 1, ACER archives, series 42, vol.257, part 2.

[57] R.M. Gagné, *The Conditions of Learning*, New York: Holt, Rinehart, & Winston, 1965. A later concise and simplified statement was: R.M. Gagné, *Essentials of Learning for Instruction*, Hinsdale, Ill.: Dryden, 1974.

[58] Australian Council for Educational Research, *Thirty-ninth Annual Report 1968–1969*, Hawthorn, Vic.: 1969, pp.36, 65.

States. Its main findings with comments on the current situation in social science teaching were published in an issue of the *Quarterly Review of Australian Education* in 1968 by D.M. Bennett as The Study of Society in Secondary Schools. The Unesco seminar was the beginning of an extensive campaign, in which the ACER took part, for the reconstruction of the teaching of social science. It led to the establishment by the Commonwealth Government in 1970 of a National Committee for Social Science Teaching (NCSST) on which the ACER was represented first by Fitzgerald and later, in succession, by the Director and Piper, and also to the establishment of advisory committees in most of the States. During the next few years the national committee organized national and regional workshops, in some of which the ACER took part, and was responsible for several publications and the funding of a substantial number of research and development projects in schools. In 1974 it sponsored a national Social Education Materials Project (SEMP), which was undertaken through the newly established CDC, and did for the social sciences, in its own way and with its own emphases, what ASEP had done for the physical and biological sciences.

Following the Unesco seminar, the ACER undertook two programs in the social science area. It established a clearing house in 1969 called the National Information Centre for Social Science Education (NICSSE). The centre collected materials, reports, books, and articles from Australia and overseas on social science teaching, endeavoured to evaluate new materials and ideas, and, from the beginning of 1970, published a bulletin from time to time. NICSSE's information service was expensive to run, did not receive much encouragement from the teaching profession, and therefore closed down in 1972. The second of the ACER's programs was a materials project. With financial assistance from the Myer Foundation in 1969 and 1970, an effort was made to prepare, for the earlier secondary years, materials on urban redevelopment in Carlton, an inner-city area of Melbourne, and on social development from culture contact in Bougainville, New Guinea. The materials were to help develop the students' reference skills, ability to comprehend complicated social data, and capacity to make relevant decisions about social situations. A third materials kit was started in 1971 on Social Change and the Aboriginal Child. The Carlton project was not completed and the Aboriginal one resulted in two classroom films produced by Film Australia and a trial booklet. The Bougainville kit was published in 1975, sold poorly, and was remaindered.

In 1972, the NCSST commissioned Piper through the ACER to produce for teachers a handbook on how to evaluate in the social sciences. The evaluation guide was a useful introduction to evaluation in general, and a unique exposition, with a wealth of practical examples, on methods of testing the cognitive and attitudinal aims of social science teaching. The project was completed and the work published in 1976. It was the first of four important interconnected contributions made by Piper to the teaching of social science.

The second was begun in 1974 and was a project funded by AACRDE on Essential Learning about Society. The aim was to try to establish the essential vocabulary and knowledge that students should possess about society before they leave school, and to try to estimate the extent of agreement on these essentials among various groups in Australian society. The work was based on a wide survey of academics, educators, parents, pupils, and community groups. The study was published by the ACER in 1977 and proved to be a very valuable and widely used addition to Australian literature on social science teaching. It provided a carefully researched framework of key items of knowledge and essential skills of fundamental importance for the design and development of curricula in social science.

The third of Piper's contributions began in 1977 under a grant from ERDC and led to an ACER Research Monograph, *Curriculum Style and Social Learning*, which appeared in 1979. This publication was the first section of a two-part study of the impact of innovation on teaching and learning in the social sciences based on an investigation of the work of 20 schools in New South Wales and Victoria. The work focused on the curriculum of the junior secondary school for Years 7 to 10. Piper made a classification of the different curriculum styles that he found and related each to the kinds of emphases that they gave to different social and educational aims. He compared the perspectives of the teachers, students, and the researcher on the impact of the various styles. His fourth contribution, not yet published, was a follow-up of the curriculum analysis. Using the same schools, he looked at the impact and use of SEMP materials in them. His work paralleled the earlier study of ASEP by Owen, but was a more intimate study of the impact on selected

S

schools of an extensive innovation in social education.[39]

History and Social Responsibility in Education

Out of the same stable that produced the *Chronicle* and the *Quarterly*, and worked on the social science programs, came two books by R.T. Fitzgerald on recent educational history.[40] *The Secondary School at Sixes and Sevens* was a readable and industrious synthesis of the development of secondary education in Australia during the 1960s. Secondary education, the author reported, was the great debate of that decade. The ACER showed its interest in the 1960s in several substantial ways: for example, by starting its *Secondary Education Series*; by accepting responsibility for improving examinations; by preparing the tests for the annual Commonwealth Secondary Scholarship Examination, the Tertiary Education Entrance Project, and the Co-operative Scholarship Testing Program for independent schools; by its interest in curriculum development through the Junior Secondary Science and Australian Science Education Projects; and by the extensive service by the Director on official committees of inquiry into aspects of secondary education. Fitzgerald's book documented the growth in the number of students in secondary education and the increased holding power of the schools. He examined the problems of financing the expansion and providing well-trained teachers for the schools. He described the reorganization that had occurred in each State and the general tendency to develop comprehensive high schools, and he speculated on the beginnings of reform in secondary curricula and the system of examinations. He presented a picture of educators throughout Australia, newly awakened to the reality of a rapidly increasing secondary education, and a little uncertain as yet of the directions in which it should move.

---

[39] K.J. Piper, *Evaluation in the Social Sciences for Secondary Schools*, 2 vols, Canberra: AGPS, 1976; 1977.
——, *Essential Learning about Society*, Hawthorn, Vic.: ACER, 1977.
——, *Curriculum Style and Social Learning*, (ACER Research Monograph No.4), Hawthorn, Vic.: ACER, 1979.

[40] R.T. Fitzgerald, *The Secondary School at Sixes and Sevens*. Hawthorn, Vic.: ACER, 1970.
——, *Through a Rear Vision Mirror*, (ACER Research Series No.97), Hawthorn, Vic.: 1975.

The second book *Through a Rear Vision Mirror*, published in 1975, took over where the first left off. It was an attempt to explain the interesting and exciting educational changes of the early 1970s. In this book, Fitzgerald looked at possibilities in Australian education in the 1970s in comparison with the 1940s. 'The early seventies', he wrote in his opening sentence, 'were strikingly similar in some ways to the early forties.'[41] He examined the forces of inertia and resistance in Australian school systems, culture, and society in the post-war years of 1945–50 and the new forces for change that had been generated by the war. He compared the absence of any substantial change at that time with the possibilities in the 1970s, and saw the later period as more dynamic and better prepared to accept and implement progressive educational ideas. His analysis was supported by a description of the new policies and educational bodies of the early 1970s which were rapidly reforming the educational systems. The larger part of Fitzgerald's book was written as a thesis for a PhD degree at La Trobe University. During the course of his work on his thesis he was seconded in 1973, part-time, from the ACER to serve as the educational commissioner on the national Commission of Inquiry into Poverty, and was the officer responsible for a substantial report on *Poverty and Education in Australia*. In it he stated firmly that 'the structural inequalities in our society are nowhere more evident than in our school systems . . . Education cannot serve as a panacea for poverty'. The first step in reducing educational disadvantage and improving educational facilities for the poor must be the provision of a guaranteed minimum income.[42]

The social concern expressed in Fitzgerald's books was not usually expressed so clearly and publicly in other activities of the ACER. The establishment in 1964 of a comparative–historical research division provided an opportunity to recruit a small staff who could begin to combine research in the sociology and history of education. It was, however, a short-lived effort. The division appears to have faded within a few years indistinguishably into the general research department. Although on an organization chart published by the

---

[41] Fitzgerald, *Through a Rear Vision Mirror*, p. 1.

[42] R.T. Fitzgerald, *Poverty and Education in Australia*: Fifth Main Report, to the Australian Government Commission of Inquiry into Poverty, Canberra: AGPS, 1976, p.227.

Director in 1973 Fitzgerald was shown as a Chief Research Officer in charge of reviews and comparative studies, there was then no identifiable group. Fitzgerald, too, left the ACER in 1975 to take a post at the State College of Victoria, Burwood, and his poverty commission report was published after he had ceased to be a member of the ACER staff. It was an uncomfortable group to foster. Some members of the executive thought its work was over-critical and somewhat prone to sweeping statements. It was the one group which could most readily offend educational authorities and governments.

The Director, with his strong background of social service and his interest in socio-educational surveys, was, nevertheless, conscious of the need for educational and social reform. He favoured a more co-operative style and, in the 12 years between 1960 and 1972, made a sustained contribution on a succession of governmental committees to the analysis of current educational problems.

Service on Public Bodies by W.C. Radford

Radford was a member of committees to inquire into aspects of education in Victoria in 1960 and 1963, to report on education in South Australia in 1969 and 1970, and to recommend a structure for a Commonwealth teaching service in the ACT and Northern Territory in 1972. He visited and advised the government of Tasmania on its system of secondary school examinations in 1965, chaired a committee for the same purpose in Queensland in 1969 and 1970, and, in 1963, led a Unesco team to report on the development of education in Northern Rhodesia (Zambia). During this period he was also treasurer and, from 1969 to 1971, president of the Australian College of Education, a member and, for a few years, chairman of the Australian Unesco Education Committee, chairman of the council of the Melbourne Kindergarten Teachers College, and a part-time member of the Australian Broadcasting Control Board from 1961 to 1972. He served on the Victorian selection committee of the Churchill Memorial Trust, and on the research committee of the Commonwealth Advisory Committee on Advanced Education, and he was continually involved in welfare work as a member and, subsequently, president of Melbourne Legacy. In all these substantial public contributions, he consistently argued and acted to try to secure three educational improvements:

greater equality of educational opportunity, more individualization in learning and teaching, and more involvement by teachers in the processes of assessment and school organization.

This line of thought was not new at the ACER. It was very much the platform on which Cunningham had stood. His prime interest as an educational psychologist had been in the measurement of individual differences and the ways in which they might be more adequately catered for. His experience in rural primary schools and, later, in diagnosing and teaching sub-normal children had made him highly conscious of the existence of educational disadvantage and inequality throughout the educational system. His sympathy with the progressives of the NEF led him to advocate more freedom and responsibility for the classroom teacher and a reduction in the power of the central bureaucracy. Radford, too, came from a rural background and, in his early years, had helped to get the NEF established in Australia. Because of his extensive involvement in governmental committees, he had more opportunity than Cunningham to get his views expressed in public documents, to see them the subject of formal recommendations, and, in some cases, to have them translated into action.

Radford was not a systematic educational philosopher, but was a good expressive writer, able to set out his main ideas in a readable and common-sense way. His best expression of them came in the chapter, on the purposes of the educational system, for which he was mainly responsible in the 1970 report on education in South Australia. The two great purposes, he wrote, were first, to provide every child with an opportunity for an education that would enable him to make the most of his abilities and interests, and secondly to ensure that each individual to whom this opportunity was granted could develop himself to the maximum. To achieve the first aim—equality of educational opportunity—Radford, in the report and elsewhere, argued the case for more community interest and participation in education to ensure that the community's educational needs might become better known and more substantially catered for. On the second aim—the individualizing of the process of education, about which he was much exercised at all times—he consistently advocated three lines of development.

He wanted a curriculum so designed that, in most of it, students could proceed at different rates and to different levels according to their own individual capacity. SRA reading laboratories and the IMP were moves in the right direction. He was interested in having the ACER develop and disseminate such individually paced materials, and he evaluated progress in curriculum design and teaching methods mainly by the touchstone of individualization.

He was also much concerned with the reform of examination procedures in secondary schools which, in Australia, had been traditionally locked into a system of external public examining. He saw the system as distrustful of teacher initiative, restrictive of student choice, and inadequate as a judge of a wide range of individual abilities and interests. The solution, which he proposed to the educational authorities in Tasmania and Queensland and which they adopted in part, was to rely on a form of teacher assessment in which groups of schools would try to arrive at common standards by moderating each other's examining procedures. This freedom under moderation should enable schools to adjust their curricula and methods of teaching much more readily to the needs of their own particular pupils and community. Some five years after his Queensland report had been accepted, an investigation in 1976 concluded that teachers had not been able to measure up to the requirements of the reform, and that the Radford scheme had 'not lived up to expectations'.[43] Clearly the innovation required more time to mature, and more in-service education and administrative support to make it work more effectively. Radford's interest in examination reform was reflected over many years in the work of the ACER. The development by the ACER of tests for the CSSE and for tertiary entry, that evaluated skills and understanding in important areas of knowledge not tied to prescribed syllabuses, and the production of item banks to provide test material for classroom teachers and others concerned in moderating were projects during the 1960s and 1970s that made a considerable impact on the practice of assessment in Australian schools.

Changes in school organization, which would give teachers more responsibility in determining a school's program and would provide students with more opportunity to make progress at their own pace, were a further significant part of the program that would achieve the school's central purposes as Radford saw them. The ungraded school, supported by the ACER's conferences on individual differences in 1962, and the greater flexibility in school time-tabling and general organization to allow for more individual work suggested in the South Australian report were very much to his taste. Probably the most innovative set of recommendations of that kind were those contained in the report on the proposed Commonwealth teaching service in 1972. The Commonwealth Department of Education and Science commissioned the ACER to prepare the report, and the Council invited W.D. Neal, then a senior administrator on the staff of the University of Alberta and formerly in the Western Australian Education Department, to share the task with Radford. Together they recommended the development of a new teaching service in which 'considerable authority and responsibility should be delegated to the school for the conduct of its affairs'.[44] Teachers were to be included on boards of school government and on any other governing structure for education, and the headmaster and school staff were to determine the school's staffing organization and expenditure of funds within broad guidelines set by the educational authority. They suggested the development of differentiated staffing with various kinds of teachers and teacher aides and a variety of positions of responsibility within schools. The teachers' professional development was to be carefully planned and co-ordinated, and would include regular study leave, in-service courses, and the establishment of teachers centres. Teachers should be represented on any promotion board. The report established a style for the teaching service.[45]

---

[43] W.J. Campbell et al., *Some Consequences of the Radford Scheme for Schools, Teachers, and Students in Queensland*, (AACRDE Report No.7), Canberra: AGPS, 1976.

Detailed arrangements with the service were subsequently built up which were not covered by the report or, in some cases, differed from it. But the general tenor was within the spirit of the report. Its general effect was to establish a teaching service of a kind which R.F. Butts had earlier sought in vain in Australia, one which consisted of teachers who were 'trusted to carry on their tasks independently as full-fledged professional workers'.[46]

---

[44] W.D. Neal and W.C. Radford, *Teachers for Commonwealth Schools*: A Report from the ACER to the Commonwealth Department of Education and Science, Canberra: AGPS, 1972, p.82.

[45] A description of the establishment of an independent educational authority for the Australian Capital Territory and its early activities relating to schools and the new teaching service is given in an ACER publication: P.W. Hughes and W.R. Mulford (Eds), *The Development of an Independent Education Authority—Retrospect and Prospect in the Australian Capital Territory*, (Australian Education Review No.10), Hawthorn, Vic.: ACER, 1978.

---

[46] R.F. Butts, *Assumptions Underlying Australian Education*, Melbourne: ACER, 1955, p.63.

9

TESTING AND RESEARCH PROGRAMS 1960–80

In 1960 a new era in testing began for the ACER with the development and sale of packages of tests to its governmental clients. The first of these was the New South Wales Basic Skills Testing Program. It was closely followed by programs in the other States and Territories, and subsequently by the Commonwealth Secondary Scholarship Examination (CSSE), Tertiary Education Entrance Project (TEEP), and Australian Scholastic Aptitude Test (ASAT). It was a profitable enterprise. Sales revenue began to rise spectacularly in 1960, was soon boosted by SRA sales, dropped temporarily when the SRA agency was no longer available, and again shot up rapidly after 1968 with a marked increase in the distribution of both tests and curriculum materials.[1]

Basic Skills Tests

Dunn, during the course of a visit to the United States on a grant from the Carnegie Corporation in 1956, met and was impressed with E.F. Lindquist who, with A.N. Hieronymus, had developed a package of tests at the University of Iowa, known as the Iowa Tests of Basic Skills. They had first been published in 1940, were widely used in the USA, and covered communication and numerical skills for Years 3 to 9. For older students, from Years 9 to 13, Iowa Tests of Educational Development were available, which covered a wider range of understanding and skills. On his return he managed to interest the New South Wales Department of Education in the possibility of a package, similar to the Iowa Tests, to be produced by the ACER. In 1959, a formal proposal was put to the New South

---

[1] See the graph, The ACER's Income, Profit and Loss, 1953–**80**, in Chapter 10.

Wales authorities and copies sent to the other States, suggesting a battery of tests based on the local curriculum and using, with Lindquist's permission, the Iowa techniques and material where applicable. New South Wales accepted the proposition and the ACER began the work of building the tests. Trials were carried out in 1960 and 1961 in close co-operation with the department's research and the curriculum branches, and the tests were put into operation in 1962. On a smaller scale, a battery of guidance tests was designed for New South Wales and put into use in 1960; and, with the help of teachers in infants schools, lower grades achievement tests in arithmetic, reading, and reading readiness were developed and a testing program started in 1962.

In 1962, the first year of the New South Wales Basic Skills Testing Program, tests in reading, arithmetic, and spelling were administered to 100 000 students in 597 schools. They were marked by teachers, sent to the ACER for processing, and the analysis of results returned fairly promptly to the schools. For its services in preparing the tests and processing the results, the ACER charged 2/- per student. In 1963 the numbers rose to 160 000. In May 1963, Dunn addressed a large gathering of teachers from Catholic schools in Sydney and, in consequence, a number of New South Wales Catholic schools joined in the tests. In that year, too, the Department of Education of the Territory of Papua New Guinea, whose schools for children of Australian expatriates followed the New South Wales syllabus, showed considerable interest, and 33 of these schools joined in the testing program.[2] Dunn visited New Guinea twice in 1964 and 1965 to consult on general problems of testing in the primary schools, and established the basic skills program firmly in that country. Tasmania, too, had shown considerable interest throughout the course of the project, and decided in 1967 to use some of the tests in the program.

Some of the NSW basic skills tests were also used in a Victorian battery. In 1963, a large sample of pupils in Victorian primary schools were given a modified version of some of the reading tests in the basic skills battery. During the following four years up to 1967, similar surveys were carried out in spelling, mathematics, English usage and grammar. The Victorian Primary School Testing Program, as it was known, was resumed in 1970 with a group of tests in social studies and listening comprehension, and in 1975 with reading and spelling tests from the basic skills battery previously used in 1967. The Victorian program was not a regular yearly monitoring like the New South Wales one. It was an occasional assessment with the repetition of some of the tests from earlier administrations, so that comparisons could be made, for example, between the standards of work at the time of the 1946 curriculum survey and the standards of various years in the 1960s and 1970s.

---

[2] K.R. McKinnon to W.C. Radford, 12 June 1963, ACER archives, series 42, vol. 173.

The basic skills project was a tailor-made package for New South Wales primary schools. It involved the ACER's staff in extensive discussion with the curriculum branch of the Department of Education, in an effort to arrive at precise statements of the aims and content of the curriculum and its use in schools, and in extensive consultation with the research branch to determine the most useful ways of designing, administering, scoring, and analysing the tests. By 1968 the idea had emerged from these discussions that an annual testing program which made an assessment of standards reached at a set time each year might be of considerable use to an administrator, but was of less value to a teacher who would be better served by a more flexible program which he could use at various times according to his own judgment and the requirements of his own teaching pattern. The Basic Skills Testing Program, accordingly, was gradually converted into a New South Wales Primary Evaluation Program.

In 1971 the mathematics tests were replaced by new ones, each of which tested understanding of a single topic in the curriculum, and those and the other tests in the battery could be used by teachers at any time during the year. A new reading test, based on Clark's research into the structure of reading abilities, was added to the battery in 1976. By that year, all the basic tests had been revised, and were issued to schools for their own use in testing mastery of concepts and skills from time to time as well as in establishing more general norms of achievement. In that year, too, the ACER ceased to have a direct concern in the program. The New South Wales Department of Education assumed responsibility for its further development, and agreed to pay a small royalty for the use of tests that had been developed by the ACER.

Tests for the Award of Scholarships

The tests in basic skills were designed to help teachers ensure that their students achieved competence in a number of essential processes and skills. A different kind of task, that of selecting a small number of students of high achievement for financial support during their secondary or tertiary education, was also requested of the ACER's test developers.

Since 1940, the ACER had annually provided the New South Wales Public Service Board with a test to help select its recruits. It was a test of general ability 'at the superior adult level', and was thought by Cunningham, when the practice began, to be 'the first time in Australia that a governmental agency has employed such tests in the selection of personnel'.[3] The contract continued for 26 years until 1966. A similar service was provided for the Commonwealth Public Service Board from 1960. This was, however, a more extensive task, and included a number of tests of achievement in basic skills, measures of comprehension and critical thinking, and, subsequently, a test for the selection of graduates. Other government departments and several private firms during the 1960s and 1970s requested and received some assistance with their selection problems.

In the mid-1950s, several experiments were started with the use of tests of scholastic aptitude and skills in reasoning in the selection of students for entry to various tertiary institutions. The residential colleges of the University of Melbourne administered a scholastic aptitude test in conjunction with their usual academic examination for the award of entrance scholarships in 1956. In the same year, the Faculty of Law at the University of Melbourne used the same experimental approach and, subsequently, the Faculty of Engineering at the University of Melbourne, and the Faculty of Economics at Monash University joined in. The law schools have continued with the ACER to explore various methods of selecting students to the present day. The residential colleges also continued with the program and, when the Australian Scholastic Aptitude Test (ASAT) became available in 1970, they added it to their testing program.

---

[3] Australian Council for Educational Research, *Eleventh Annual Report 1940–1941*, Melbourne: ACER, p.17.

Another selection program in which the ACER was involved was the examination for Victorian Junior Scholarships awarded for secondary school courses. From 1945 to 1960 the ACER developed or modified existing tests of general ability for students of 12 to 13 years of age who sat for that scholarship examination.

Co-operative Scholarship Testing Program

In 1962, a number of independent schools in Victoria who offered scholarships at a similar age level requested the ACER to supply them with a test package, which included tests of English, mathematics, and general ability, for use at a common examination. The ACER marked the papers and provided all schools with a list of students in order of merit. In the following year, several independent schools in New South Wales joined the group and the program soon spread to all States. In 1972 the tests were substantially revised in an effort to make them more a measure of scholastic aptitude. They were offered at two levels, one for scholarships at entrance to secondary school, the other for continuation beyond Year 8 or 9, and they contained tests in the humanities, written expression, and mathematics–science, as a somewhat junior version of the CSSE for which the ACER had also been responsible for the past eight years. The Co-operative Scholarship Testing Program (CSTP) has continued to the present time and, throughout the 1970s, has regularly involved more than 100 independent secondary schools in all States and approximately 10 000 students each year.

Commonwealth Secondary Scholarship Examination

Before the general election in 1963, the then Prime Minister promised that the Commonwealth Government would award 10 000 scholarships tenable by students in Years 11 and 12, the last two years of secondary school. 'I believe', he said, when formally announcing the scheme in the following May, 'that many children of ability will be encouraged by this scheme to stay on at school for a longer period than they might otherwise have done, to their own benefit and that of the nation.'[4]

---

[4] Ministerial statement by R.G. Menzies, House of Representatives, Commonwealth Parliament, 19 May 1964.

The Commonwealth Government insisted that the scholarships be awarded on the basis of a competitive examination and left it to the state education departments to organize the details. In Victoria there was, at that time, no completely external examination at the end of Year 10 which could be used for the purpose. Accordingly, in March 1964, the Victorian Director of Education visited the ACER to discuss the possibility of an examination in several subject areas, not associated with the content of a set syllabus, on which the new set of scholarships might be awarded.

The ACER agreed to undertake the project and the administration of it was placed largely in Dunn's hands. In a memorandum which he circulated in May to the test constructors, he explained that papers would be required in four areas: Written Expression, Quantitative Thinking, Comprehension and Interpretation (Sciences), and Comprehension and Interpretation (Humanities). These were, in his and Radford's view, the central areas of secondary education. By examining the intellectual skills in all four of them, the project would be testing whether students had a grasp of the basic skills and, it was hoped, had the potential to complete successfully the intellectual tasks that a sound secondary education should impose on them. Though not consciously expressed as such the examination was an attempt to define and test the core curriculum of secondary education. Radford, in writing to explain the tests to the public servant responsible for the negotiations, made the point clear. He affirmed of the tests:

> The abilities which they would test are those which should be developed in any good broadly based course of study, irrespective of its specific content . . . They would test as a whole, the range of abilities which we think a soundly educated child should have at this level, i.e. [the child] should have a good background in literature, social studies, mathematics, and science (a background which has produced abilities which are not restricted to knowing or applying a particular content of a particular course, and which are transferable to new and different courses), should be able to write well, and should know something of the mechanics of expression. These are abilities which should be developed in any kind of school.[5]

---

[5] W.C. Radford to F. Lawley, 8 April 1964, ACER archives, series 42, vol. 322. For more details concerning the objectives of each segment of the tests, see

Radford's remarks were an expression of the relationship between testing and curriculum construction.

The preparation of the tests for the first year, 1964, was done with little time to spare. The schedule allowed only 13 weeks for collecting a small group from Victorian schools, writing trial items, testing them, and rewriting the final version. Once the work got under way, New South Wales and Western Australia also decided to adopt the ACER's tests for their scholarship awards. Before the items were completed, they had to be submitted to referees in each of the three States. Subsequently Tasmania in 1965 and Queensland and South Australia in 1966 joined in. So that the questions would not become known to candidates as a result of the trials, the ACER arranged for the New Zealand Department of Education and the NZCER to organize the trial testing quietly on a sample of high school students in New Zealand.

The preparation of the tests was an exciting venture. There was some previous experience to help the constructors, in the work that had been done by the ACER for the entrance scholarships for independent schools, but the new work was pitched at a higher level and covered a wider range. It was a ten-year project. At the end of 1964, the ACER signed a three-year contract with the Commonwealth Government, which was renewed until 1974 when the scholarship scheme was discontinued. During the course of that time, the test unit responsible for constructing the CSSE papers recruited a team described by one of their secretaries as a 'tremendous, innovative, dedicated, hard-working, and intelligent group of people'. There was much to justify the description. Initially there were two individuals, T.L. Whitford and L.D. Blazely, proficient in educational measurement, assisted by a number of talented classroom teachers. Within a few years the balance had changed, and the core of the team was a group of teachers who had some skill in measurement but whose principal interest lay in analysing the educational content of the subject areas with which they were dealing. B. Rechter, a science teacher who subsequently lectured in the educational measurement course at the University of Melbourne, became

---

Australian Council for Educational Research, *Educational Objectives being Tested in the Commonwealth Secondary Scholarship Examination*, Canberra: Commonwealth Government Printer, 1967.

the leader of the team and head of the ACER's section on test research and development for seven years until he left in 1974 for the post of Director of the Lincoln Institute of Health Sciences, a college of advanced education in Melbourne. Rechter and his group developed interesting and provocative tests that were designed to probe in a thoughtful way the students' understanding and grasp of skills and principles, and their ability to analyse, use, and interpret the information presented to them. The information presented in the tests was drawn

> from literature, historical documents, social studies tables, cartoons, geographical maps, photographs and diagrams from scientific and psychological experiments, as well as from mathematical patterns that include numbers, algebraic symbols and line drawings.[6]

An extensive use was made of objective tests and great care was taken in the construction of them. The tests were subject to close scrutiny by teachers and other educational research workers. The team consequently spent much time 'on refining the material and the questions' so that they would stand up to criticism from such sources. 'We feel', Clark wrote to Ennor in 1970, 'a special responsibility in this area as the producers of a major objective test battery which functions as a model for Australian education.'[7]

The group was not an easy one for the rest of the ACER to live with. They developed great solidarity, they were housed in their own separate premises, revelled in their independence, and were ready to question any administrative direction given to them. Undoubtedly their work was stimulating to the teaching profession.[8] It is probable that the teaching and examining in English during the 1970s was affected by their test papers in written expression and the humanities, which were widely studied by Australian educators. In 1969 the ACER was asked by the Victorian Universities and Schools Examinations Board to investigate the reliability and consistency of the examination marks in the paper on English Expression taken by all candidates at the examination in the final year of secondary school, the Higher School Certificate examination, and to evaluate the use of English Expression as a compulsory requirement of the examination. The report was made by two members of the CSSE team, B. Rechter and Jillian Maling Keepes.[9] They concluded that the English Expression course did not satisfactorily achieve its aims for many students, and suggested several ways of improving it. Their recommendations were taken up by the examining body which, while not accepting all of them, did restate the aims of the subject and modify its examining and marking procedures.

---

[6] B. Rechter, Death of cramming, *The Age* (Melbourne), 3 July 1972, p. 18.

[7] M.L. Clark to A.H. Ennor, 21 July 1970, ACER archives, series 42, vol. 327.

[8] A. Grant and G.P. Withers, *From Testing to Teaching in the Humanities:* Ideas and Resources for Use at the Upper Secondary School Level drawn from the Commonwealth Secondary Scholarship Examination 1971. Hawthorn, Vic.: ACER, 1973.

Similarly, teaching and curriculum construction in social science reflected their attack on the essentials of learning and was directly applied by one of the team, Piper, in his handbook on *Essential Learning about Society*. Some of the test material was a little controversial. They were accused of blasphemy on one occasion when an unusual translation of the Bible was used in a question, of immorality for using reproductions of nude paintings, and of subversive communism when another question featured Mao Tsetung. The technical competence in some of the test construction was also queried.

When the ACER agreed in 1964 to undertake the construction and marking of the CSSE tests, the Commonwealth Government was initially unwilling to pay for any research associated with the project. Eventually, after repeated pleas by Radford, it grudgingly agreed to pay half the cost, provided that the research was confined to an analysis of ways in which the tests might be technically improved. Any other matters which the Director had mentioned as desirable, such as the attitudes of teachers and pupils, and comparisons of subsequent school performance, were to be financed independently by the ACER.[10] In the contract for 1965–67, £2000 per annum was provided by the Commonwealth Government on the same terms.

---

[9] Jillian Maling Keepes and B. Rechter, *English and its Assessment*, Hawthorn, Vic.: ACER, 1972.

[10] W.C. Radford to J.G. Gorton, 27 May and 5 October 1964; J.G. Gorton to W.C. Radford, 25 September, 23 October, and 13 November 1964, ACER archives, series 42, vol.322.

Research was undertaken, by the ACER and several other investigators, into the validity of the scholarship awards as predictors of the students' future scholastic success. The results were indecisive. It was clear that most scholarship winners succeeded in the last years of secondary education; it was not so clear that they were likely to succeed at university, or that the CSSE would predict their future success any better than some other form of assessment such as the usual external examination. It was doubtful, too, whether it would predict success any better than a battery of the ACER's standardized general ability and achievement tests. The CSSE programs were examined, too, in respect to the validity of their structure. It was difficult by statistical analysis to find a coherent structure throughout each test, and therefore impossible by that means to assess the extent to which the content was adequate to the purposes of the test.

The great political purpose of the CSSE had been to make awards which would encourage more students of outstanding ability to complete their secondary education. It appeared doubtful whether this was the case. In an ACER study on the matter in 1971, it was found that parents of 280 award winners in a sample of 300 students from Brisbane, Sydney, and Melbourne stated that, while it was a big financial help, their children would have completed secondary education even without a scholarship.[11] Several of the studies showed that students from independent non-Catholic schools gained more scholarships than students from any other kind of school and that their success rate was well above what might be expected of the numbers attending those schools. This finding lent some force to the complaint that the scholarship scheme had a social class bias in that it favoured children from better equipped schools, and wealthier and better educated families. The matter was raised by the Victorian Teachers Union and was the occasion of a question in the federal parliament in 1964. The ACER was asked to comment on the matter, and the Director, though confessing that he could not be sure of the answer, ended by stating that those responsible for preparing the examination believed 'it will favour those who are intellectually able irrespective of their background', a reply which the prime minister duly relayed to the parliament.[12] The Director's test construction team, however, was not at all confident that their competitive examination would not favour the students who already had the greater social and educational advantages, but there was no contract money available for serious and sustained research on the question.

---

[11] R.E. Wilkes, T.E. Noble, and W.T. Renehan, *Some Effects of Winning a Commonwealth Secondary Scholarship Award*, (ACER Research Series, No.87), Hawthorn, Vic.: ACER, 1971, p.30. A summary of the research on the CSSE was given in J.D. Thomson and J.P. Keeves, *Some Studies in the Validity of the CSSE Tests*, Hawthorn, Vic.: ACER, 1974, and J.D. Thomson and C.W. Slee, *The Predictive Value of the CSSE Tests*, Hawthorn, Vic.: ACER, 1975.

Tertiary Education Entrance Project and Australian Scholastic Aptitude Test

In 1967 the Secretary of the Commonwealth Department of Education and Science, A.H. Ennor, wrote to his senior assistant secretary, W.J. Weeden, suggesting that he look into the possibility of evolving an 'ACER-type' test, that is CSSE type, as a university entrance examination. 'It should be possible', he wrote, 'to "upgrade" the test and use it as an index of possible success at the tertiary level.'[13] Radford, when consulted, was doubtful, and proposed the funding of a substantial experimental and developmental program.

The ACER, at that time, was helping the Australian National University (ANU) with tests to distinguish between students applying for entry from different States, and was also involved in preparing entrance tests for the residential colleges at the University of Melbourne. Radford, therefore, professed the ACER's willingness to prepare some tests that the ANU could use and compare with the ordinary matriculation examinations. C.A. Gibb, Professor of Psychology at ANU, suggested that the university administer in mid-year a test of the CSSE type to potential students who would be guaranteed admission, on the basis of the test and their school's assessment of them, provided they satisfactorily completed that year of schooling. The university agreed to the proposal and the Commonwealth Department of Education and Science commissioned the

---

[12] Notes on question asked of the Prime Minister 12/8/64 sent by W.C. Radford 13/8/64; and extract from Hansard, Answers to questions, 1 September 1964, ACER archives, series 42, vol.322.

[13] Memo of A.H. Ennor to W.J. Weeden, 15 June 1967, Australian archives, Department of Education, Tertiary Education Entrance Project—Policy and Development, File no.77/1015.

ACER, in the first instance, to undertake a two-year investigation using CSSE-type tests. TEEP was thus launched towards the end of 1967, and had, in Ennor's words, 'as its general aim the assessment of various methods of assessment for tertiary education with a view to improving such selection'.[14]

The University of Western Australia and the Tasmanian Education Department joined the ANU in the initial program, and in December 1967 a conference was held of representatives from the three users, the ACER, and the Department of Education and Science, to consider the approach to be taken. The ACER was required to prepare five papers on the CSSE model for use in 1968: one essay-type paper on written expression, and four papers of objective multiple-choice questions on quantitative thinking, comprehension and reasoning in the physical and biological sciences, comprehension and reasoning in the social sciences, and understanding and interpretation in the arts and humanities. It was the expectation of the test constructors that the tests would be good predictors of success in tertiary education and would have sound educational value in directing teachers' attention to the kinds of questions they should be asking their students.[15]

Three series of test batteries were prepared, the first two for 1968 and 1969, and a third, compiled from the other two with the addition of a paper on the interpretation of verbal and pictorial material, for 1970. In a summary of research for the Commonwealth Department of Education and Science on TEEP Series A, it was reported that it proved to be 'less successful than conventional matriculation in predicting university performance in 1969, although in fairness it must be admitted that neither of these measures gave much cause for satisfaction'.[16]

---

[14] Memo of A.H. Ennor to Minister, 17 December 1969, Australian archives, loc. cit, File no.77/1015 Part 4.

[15] An account of the construction of the TEEP battery is given in B. Rechter, *Admission to Tertiary Studies*, (Occasional Paper 2), Hawthorn, Vic.: ACER, 1970. A summary and discussion of current university entrance examinations was compiled in 1968: B. Rechter and N.L. Wilson, Examining for university entrance in Australia: Current practices, *Quarterly Review of Australian Education*, 1968, 2(2), 1–26.

[16] J.E.N. Sutherland, *Tertiary Education Entrance Project: Interim Report on the*

In 1969 the ACER was commissioned, as the second stage of the project, to prepare a different kind of test, a three-hour multiple-choice test of scholastic aptitude, for experimental use in 1970. ASAT was administered in all States except Victoria at the end of 1970. The TEEP tests were also used in that year in various States. The Commonwealth Government continued to fund the production of ASAT until 1974, at which stage three States were using the test. Further versions of the test have been paid for by its users.

ASAT was an attempt to assess a range of intellectual skills that were thought to be important for students in tertiary-level work. Like the CSSE and TEEP tests, it was composed around diverse kinds of stimulus material not taken from prescribed school syllabuses. It was hoped that, when it was combined with an assessment of a student's school work made by teachers at the school, the combination would predict success in tertiary studies at least as well as the traditional external examination could. In its first version, it was a three-hour test; later a four-hour one became available, divided into two two-hour sections. The production of ASAT has continued to the present time. After the first few experimental years, ASAT was regularly used only in Queensland, Western Australia, the Australian Capital Territory, and Northern Territory. From 1973 special forms of ASAT were produced for institutions which wished to select among candidates who did not fit into the normal entry categories.

Conferences of ASAT users were held in 1976, 1977, and 1978 at which a report on the previous year's testing and proposals for the coming year were discussed. At the 1978 meeting there was a serious debate on its basic function. Should it be regarded as a means of predicting success in tertiary work and therefore be seen primarily as a tertiary selection device? Or should it be regarded as a scaling device for the better comparison of students from different schools at the end of their secondary schooling? Undoubtedly the intention of the first experimental use of it was that it should be a useful and direct means of selecting students for tertiary work. Research, however, at the universities where any of the TEEP series or ASAT had been used, indicated that they were 'not suitable as the main cri-

---

Evaluation of the TEEP Series A Test Battery, Canberra: Department of Education and Science, 1971.

teria of selection for a university course'.[17] As the users and constructors of ASAT became more familiar with it, both its educational possibilities and its use in scaling became more apparent. From 1973 on, several research studies were undertaken similar to those previously done in connection with CSSE, from which it was possible to make continuous improvements in the structure of the various forms of the test.[18]

Item Banks

The CSSE, TEEP, and ASAT tests produced items designed to make teachers and students think carefully about the educational purposes of their work, and use to the full the intellectual skills that the school's educational program was supposed to have developed. A corollary to such tests was the development for ordinary school use of a supply of questions which would assist teachers to incorporate that approach into their daily work. In 1964, the Schools Council in England had published a bulletin suggesting the collection of examination questions of known technical value that could be used in the construction of examination papers. During the next few years, collections of questions, known as item banks, were started and were seen, when carefully constructed, to be a useful resource which teachers could use for individual testing, for continuous assessment, and in their more formal examinations. A widely read study in 1969 described item banking in the sub-title as 'a method for producing school-based examinations and nationally comparable grades'.[19] By 1970 the movement was well established in the United Kingdom and the USA, and was seen by a number of local administrators as an innovation worth trying in Australia.

---

[17] W. McDonell, *Testing for Student Selection at Tertiary Level*: A Literature Review, Hawthorn, Vic.: ACER, 1975, p.63.
See also J.E.N. Sutherland, Prediction of academic performance at two Australian universities, *Australian University*, 1974, 12(2), 122–70.

[18] Australian Council for Educational Research, *Research Papers Relating to the Australian Scholastic Aptitude Test*: Papers presented at the 1978 annual conference. Hawthorn, Vic.: 1978.
L. Lees, *Research Relating to the Australian Scholastic Aptitude Test*: A Selected Annotated Bibliography. Hawthorn, Vic.: ACER, 1979.

[19] R. Wood and L.S. Skurnik, *Item Banking*, Slough, Bucks: NFER, 1969.

In October 1972, the ACER held a two-day conference of representatives of state education departments and examining boards to consider priorities in the testing field. The conference strongly recommended 'the development and use of item banks at Grades 10 and 12 levels'.[20] Consequently, the ACER began a five-year program from 1973 to 1977 in the development of item banks on an Australia-wide basis. It was one of the ACER's largest activities. The recently established federal Schools Commission provided $10 000 towards the cost of a feasibility study of an Australian item bank, and large numbers of teachers from each State were involved either as secondments to the ACER or as participants in the many workshops that were organized. It was a useful exercise in action research, putting together the work of specialists in educational measurement and the experience of classroom teachers in a productive combination.

Over the five-year period, 7000 items, each one a multiple-choice question, were put together in mathematics, science, and social science for students mainly at Year 10 level. To do that work, 19 teachers were seconded for short periods at varying times from Queensland, Victoria, South Australia, Western Australia, and the Northern Territory educational systems. They worked with a group of test developers at the ACER and the team was involved in a considerable number of workshops with teachers throughout Australia. The ACER staff edited the items produced at the workshops, wrote fresh ones, supervised trials of them in various high schools, and prepared them for publication together with appropriate handbooks for teachers.[21] This process was neatly exemplified in a special project undertaken, subsequent to the main program, in 1979. In that year, the Victorian Education Department seconded a chemistry teacher to the ACER to help develop an item collection for Year 12 chemistry. Each item was written by a practising chemistry teacher, and reviewed by a panel of chemistry teachers and measurement experts who checked for mistakes in content, plausibility of distractors, uniformity of terminology, and consistency of format. The items were tested on a balanced sample of Victorian high schools, re-written, re-tested, and a first collection published in 1980.[22]

---

[20] Minutes of ACER Executive Meeting, 2 November 1972.

[21] Australian Council for Educational Research, *Australian Item Bank Program: Mathematics Item Bank*, 2 vols, Handbook, Hawthorn, Vic.: 1978.
——, *Australian Item Bank Program: Science Item Bank*, 3 vols, Handbook, Hawthorn, Vic.: 1978.
——, *Australian Item Bank Program: Social Science Item Bank*, 1 vol., Handbook, Hawthorn, Vic.: 1978.

The item collections met an educational need in the 1970s, at a time when many groups of schools had become involved in the process of moderating and equating the assessment of one another's pupils, and had begun also to take much more interest in developing school-based curricula. The item collections provided teachers with an agreed and well-tested set of questions which directed their attention to essentials in the curriculum, helped them to build their school programs, facilitated their diagnosis of students' weaknesses and made inter-school comparisons more feasible. By 1980 the ACER had sold 2000 full sets and about an equal number in the separate subjects, a number sufficient for some part of the item banks to be placed in every secondary school in Australia.

Tests for Primary and Secondary Schools

Much of the work done by the ACER in test development, from the mid-1950s on, was done under contract. The NSW basic skills tests, CSSE, TEEP, and ASAT were some of the more substantial ones. There were, however, many less conspicuous examples. The tests provided for government departments and public service boards were a useful and continuing service. There were also some helpful achievement and diagnostic tests prepared for education departments and examining boards.

In 1954, for example, the ACER was asked to prepare objective tests as part of the leaving certificate examination in English in Western Australia. Two years later, it undertook a general evaluation of the whole of the English examination in which it was found that the objective test was closer than any other section of the examination to teachers' estimates of their students' performance. The ACER continued to provide a test of English comprehension for this examination until 1970 when, with some guidance from the ACER, a local team took over the work.

There were also several notable projects financed largely from the

---

[22] Australian Council for Educational Research, *ACER Chemistry Test Item Collection* (ACER CHEMTIC YEAR 12), Hawthorn, Vic.: 1980, p.2.

ACER's own resources. From 1957 through to the present time, diagnostic and achievement tests for the senior years in physics, chemistry, and biology have been prepared and sold in large quantities in all Australian States. General ability tests, for children aged seven to nine years in lower primary classes, were first constructed in 1958, and Intermediate D for 10- to 14-year-olds, developed in 1947, was still selling to education departments in the 1970s at a rate of 100 000 each year. These tests were further developed and were supplemented by achievement tests in number, reading, and reading readiness. Throughout the preparation of the tests, which were mainly the responsibility of M.L. Clark, there was close co-operation with classroom teachers in all States. Clark, a teacher from Western Australia, had joined the ACER at the end of 1955 to supervise the sale of tests and advise customers on tests and materials. He transferred to research and became involved in the New South Wales Basic Skills Testing Program. After Dunn left, he became one of the two Assistants to the Director in charge of administration and services. He completed a PhD at the University of Western Australia in 1970 and, in 1972, with J.P. Keeves, became an Associate Director in charge of measurement and advisory services. He resigned in 1975 to return to Western Australia as a vice-principal with responsibility for research at Churchlands College of Advanced Education in Perth. His 20 years at the ACER covered almost exactly the period of Radford's directorship and, during the last ten years of it, he played a substantial part in the general organization of the institution, and at the same time made a fundamental contribution to research.

In 1968, a complete overhaul of primary school tests was begun under Clark's general direction. R. Warry, who later became Director of Planning and Services in the Queensland Department of Education, was seconded from that department for 12 months and spent most of his time working on the primary school reading tests. He came to the ACER without previous research experience and was brought into contact with a wide range of activities. He worked with Clark on the revision of the reading tests, assisted Fitzgerald with the *Quarterly Review of Australian Education*, attended discussion groups run by Turner on aspects of educational statistics, and travelled interstate with Turner and Radford to various meetings. It was a program from which he could learn much, but he found it disjointed and unco-ordinated. It appeared that the training of apprentice researchers had not changed much in the 20 years since Rayner's secondment.[23]

Some of the new primary school reading tests were ready by 1970, and the full range became available in 1972. By 1975, the ACER had developed and made available a comprehensive range of tests which systematically covered the fundamental education of the primary school: a set of reading tests for junior, middle, and upper grades; 12 tests covering most of the processes of contemporary primary school mathematics; and a series of tests of learning ability (TOLA) for Years 4, 5, and 6, and the early years of secondary school. The secondary school years were covered by a range of intelligence tests with norms somewhat out of date, by a set of reading comprehension tests, and by tests at the senior level in biology, physics, and chemistry.

Towards the end of the 1960s, the ACER's Council and executive were growing restive about the state of many of the long-established tests that were still being sold. Those who worked in the research branches of state education departments, such as Webster and Wood, thought that the ACER was starting to lose the confidence of its clients by not putting more effort into keeping the tests up to date. There had been an effort to re-norm many of the tests in the mid-1950s but little had been subsequently done to them. The test division during the 1960s was concerned primarily with fulfilling contracts such as the NSW basic skills tests, CSSE, TEEP, and ASAT. Its numbers rose considerably by the employment of short-term seconded teachers to ensure that the deadlines for the contracts were met, and there appeared to be little time or thought for the maintenance and improvement of existing tests.

By 1970 items, norms, and manuals of many of the older tests were obviously out-moded, and for many overseas tests the ACER had never provided local norms. If they were to remain on sale, they needed a revision that would be costly and time-consuming. In Clark's view, much of the material was questionable and should have been discarded. Nevertheless the Council decided that the task 'had a high priority' and should be undertaken promptly.[24] Accordingly, a test-norming program became the ACER's 'major activity' for the financial year 1970–71[25] and, over a three-year period, the sum of $110 000 was spent on it. The project involved 70 000 children from Year 3 to Year 10, and covered mainly mathematics and language tests together with some study skills and intelligence tests. The program was continued in 1972–73 with more reading and mathematics tests. Two features of the program were the improved and more economical sampling procedures that came partly from the ACER's current experience in the IEA program and, in the analysis, from the use of a computer, programmed to take account of Keats's and Lord's earlier theoretical work on the distribution of scores.[26] Beginning in 1977, another less ambitious effort was commenced to provide for the continuing revision and maintenance of the educational and psychological tests both by collecting data from test users and by specific exercises in norming. Despite the progress that had been made with the ACER's limited resources, criticism surfaced again in a paper and discussion at the Australian Psychological Society conference in 1979.

---

[23] Interview with R. Warry, 3 July 1979.

Psychological Tests

The ACER had always been interested in supplying and adapting psychological as well as educational tests. During World War II, its interest and experience with them expanded and, when Dunn came to the test division in 1947, he began a considerable expansion in the marketing of psychological tests. In that year, the ACER entered into an agreement with the National Foundation for Educational Research (NFER), recently established in England, and with the largest test producer in the USA, the Psychological Corporation. Since that date, agreements have been made with many other test producers, and the ACER managed to establish agencies or trading agreements with almost every major publisher of psychological materials in the UK and the USA. In effect, from the 1950s on, the ACER became, in Australia, almost the sole source of supply for psychological tests.

---

[24] Minutes of Meeting of the ACER Council, 23–24 October 1969.

[25] Australian Council for Educational Research, *Forty-first Annual Report 1970–1971*, Hawthorn, Vic.: 1971, p.5.

[26] See Chapter 6, under Establishment of the Test Division, and Research on Test Theory.

In 1980, its catalogue listed 170 separate tests currently available for sale. Four have been by far the most popular during the last 20 years. For the Wechsler Intelligence Scale for Children (WISC), and its Australian revision in 1974, WISC(R), sufficient kits and record forms have been sold to test 1 000 000 children between 1960 and 1980; and its advanced version, the Wechsler Adult Intelligence Scale (WAIS), has reached 500 000 people. The Revised Standard Binet Intelligence Scale has been purchased in sufficient quantities to test 600 000, and the most popular of all, Raven's Standard Progressive Matrices, has been used with approximately 2 000 000 children.

The ACER's income from the sale of tests far outstripped that from the sale of its other products—materials and books. In 1970, 65 per cent of its income from sales came from the sale of tests, 30 per cent from materials, and 5 per cent from books. In 1980, the proportion was a little more in favour of test sales: 75 per cent tests, 20 per cent materials, and 5 per cent books. The income during the 1970s from the sale of psychological tests, including tests of general ability such as TOLA and Intermediate D, was approximately the same as that from educational tests. Both were, in 1979, about $500 000, providing for the ACER a total income of $1 000 000 from the sale of tests.

Evaluation Studies

One of the seconded teachers who worked at the ACER in 1973 described it as 'really a big evaluation factory'. Evaluation was a word that had become popular in Australia and overseas during the 1960s, and interest in it had grown considerably at the ACER as its involvement in curriculum development work increased. In the 1970s, evaluation and its near relative, survey research, occupied a considerable part of the ACER's research activities. In addition to the evaluation projects associated with the development of curriculum materials in the PSSC, ASEP, IMP, and SEMP programs[27], the two most substantial ventures into evaluation were the work in the mathematics and science projects of the International Association for the Evaluation of Educational Achievement (IEA), and that on literacy and numeracy in the Australian Studies in School Performance (ASSP).

---

[27] See Chapter 8.

International Association for the Evaluation of Educational Achievement

> Since the end of the Second World War, there has been an increasing realization that educational research and comparative education could be greatly strengthened if cross-national studies with a component of objective measurement could be carried out, thus bringing to bear the experience of national educational research on international educational comparison.

This statement from the Unesco Institute for Education, Hamburg, summarized what was in the minds of a group of educational research workers who met at the Institute in 1960 to plan a series of long-term studies on a cross-national basis. A number of leading educators from research establishments in ten countries were attracted to the project, and they conducted a small international pilot study with 13-year-old children in several school subjects. They met again in 1962 and planned to begin their substantial investigation with an evaluation of the attainments of students between the ages of 13 and 18 in mathematics. Tests were constructed and samples drawn of students in the ten participating countries in preparation for a testing program in 1964.

In 1963, research organizations in countries other than the original ten were invited to participate. The ACER responded favourably to the invitation to become the Australian representative in the enlarged group which became known as the International Association for the Evaluation of Educational Achievement. Radford and Keeves were the two members of the staff most interested in the project and, from the beginning, carried the main responsibility for negotiating and organizing it. After 1967, when he joined the staff, M. Rosier too was deeply involved in the project. The ACER had always wished to be regarded as a significant point of contact with overseas educators, and Cunningham had recorded with pride in 1934 the recognition of the ACER as a central bureau for Australian education by the League of Nations Committee on Intellectual Cooperation. When, in 1946, the Commonwealth Office of Education became the main centre for formal international contacts, the ACER kept alive as many of its old connections as possible, and in the succeeding years built up a network of relationships with the educational research organizations of other countries. The new IEA link helped to widen and deepen these contacts. It was the first substantial piece of international research in education and it was an enduring effort that, 20 years and ten major reports later, was still in being.

When the ACER received an invitation to join the IEA mathematics study, Radford thought it might be costly and not particularly useful to participate. He consulted with G.W. Parkyn, the Director of the NZCER who had also received an invitation and was similarly wary[28], and wrote back to the Hamburg Institute that it was unlikely that the ACER would join the project. At the annual meeting, however, in August 1963, the Council 'after considerable discussion of the value of such a project'[29] decided to participate, and in 1964, with five Australian States co-operating, the international tests were administered. Data were gathered on the performance in mathematics of students in government schools at the age of 13 and in their pre-university year. It was supplemented with information on the backgrounds of each student and teacher, on the content and circumstances of mathematics teaching in secondary schools, and on current social and economic conditions in Australia. More than 6000 pupils were tested, and 200 schools with 700 teachers of mathematics were involved.

The analysis of results provided comparisons between different countries in student achievement, in the effect of school organization on achievement, in the content of school curricula, and in the relationship of social and economic development to school performance. The project also provided data for each country separately on each of those items. The international study was reported in 1967 in two substantial volumes edited by the Director of the project, T. Husén, and the report on Australia was completed by Keeves in 1968.[30]

---

[28] G.W. Parkyn to W.C. Radford, 15 February 1963, ACER archives, series 42, vol. 222.

[29] Minutes of the ACER Annual General Meeting, 29–30 August 1963.

[30] T. Husén (Ed.), *International Study of Achievement in Mathematics*, 2 vols, Stockholm: Almqvist & Wiksell, 1967; J.P. Keeves, Variation in Mathematics-Education in Australia, Hawthorn, Vic.: ACER, 1968.

Keeves's report was never published. It was submitted to the five state education departments which had co-operated in the project; and, as the Director-General for New South Wales was unwilling to approve its general release, it remained a confidential document. An abbreviated version with no reference to differences between the States was compiled by Radford and Keeves and published in the ACER Research Series.[31] The full report was a careful study of the differences between the States in organization, curriculum, and student achievement in mathematics. It found that, of the factors studied which had an influence on achievement by Year 8 students in mathematics, the student's interest in mathematics, his age, the hours spent in homework, and his father's occupation were the most important. Another finding of considerable interest was that it was possible to predict with reasonable accuracy the average scores for each State by studying the amount of time given to the subject in school up to Year 8. Queensland and Victoria, which had out-performed the other States in arithmetic in the curriculum survey of the 1940s, were again the two with the highest averages and also the highest number of hours per week spent in class on mathematics, while Western Australia, New South Wales, and Tasmania were near the bottom on both counts.

In 1965 the IEA began a six-subject survey, which made a study of science, reading comprehension, literature, English and French as foreign languages, and civic education. Between 1973 and 1976, a series of nine reports appeared. They dealt with each of the subjects and with the data that had been collected on the educational systems of the now 21 participants and their social and economic background. Keeves was the co-author of the report in 1973 on science. The ACER helped in the developmental work of most of the six areas but decided to participate fully only in the science survey. Radford was still tentative about involvement in IEA work, and the ACER's test staff were highly critical of the tests proposed for all areas, even including the science project which they eventually accepted.[32]

---

[31] J.P. Keeves and W.C. Radford, *Some Aspects of Performance in Mathematics in Australian Schools*, (ACER Research Series No.85), Hawthorn, Vic.:ACER, 1969.

[32] M.J. Rosier to L.C. Comber, Chairman, International Science Committee, 21 January 1969, ACER archives, series 42, vol.252.

A battery of science tests, questionnaires, and attitude scales were tried out on 14-year-old and matriculation students in a small sample of Australian schools in 1968–69. Rosier attended a technical meeting in Hamburg in 1968, and preparations were made for a feasibility study in 1969, preparatory to the actual survey which took place in 1970. In 1971, a substantial amount of data was collected on Australian education in general for IEA case studies which were being made on each of the participating nations.

Radford found that the sampling technique devised for the IEA project was efficient and economical and thought it a valuable spin-off from the work that might be used by the ACER and the state education departments for other studies. He passed on the instruments recently used to the New South Wales Science Evaluation Committee to help them in their researches. He was, in effect, finding that the IEA program was developing into a useful resource, and he began to be more attracted to its activities and to the network of international contacts that had been developed through it.

Beginning in 1973, a number of short reports on the science project and later on other IEA activities in Australia were produced in an *IEA (Australia) Report* series. Australian students came up well in the international comparisons for their performance in the science tests. At both age levels, they were among the highest scoring groups. As with mathematics, there was considerable variation between States. South Australia stood out at both age levels and, again, there appeared to be a strong relationship between the level of performance and the time spent by students on the study of science in school. Male students in both age groups were superior in performance to female students in both mathematics and science; they had more favourable attitudes towards those subjects, and they had better opportunities to study them and better facilities to use.

A follow-up study of the 14-year-old students in the Australian science study was funded by AACRDE and carried out by the ACER in 1972 on the then 16-year-olds, and the matriculation students in the 1970 sample were also sent a follow-up questionnaire. The study of 16-year-olds was done by Rosier and published in 1978 as *Early School Leavers in Australia*. In 1975 the data bank from all the six subject areas was deposited with the ACER and at the Australian National University. It was a valuable collection of data on which additional analyses of international or solely

Australian material could be made. In the following year, two such studies of the Australian data were made and published in the *IEA (Australia) Report Series*. Subsequently many more studies were made on a useful diversity of topics, such as the leisure-time occupations and interests of adolescents, the problems of the transition from school to work, and student attitudes towards school.[33] At meetings held in 1976, a second mathematics project was planned which took place in 1978. The first part replicated the 1964 study and used essentially the same instruments; the second, designed to examine influences at work in the course of a full year's work by testing at the beginning and end of the year, was indefinitely postponed.

The IEA program received a considerable amount of attention at the ACER, from the time when the first tentative connection was made in 1963, and the staff was not always sure that it was a worthwhile expenditure of time. It was interesting to have carefully measured comparisons of educational achievement with other countries. But it was hardly surprising to learn that there was little difference in performance among the students of the developed countries:

> Given broadly comparable material to work with, the school systems of the various more developed countries are, in general, turning out students of broadly comparable competence in the subjects tested.[34]

Australian educators, however, had something to learn from the expert curriculum analysis on which the testing program was based, and research workers, from the sophisticated technique of sampling and analysis that characterized the project. But some of the staff, seeing the program as essentially one of monitoring student performance, wished for some more creative research that would investigate processes and not merely results. If the IEA did not do that, it did at least make a solid contribution to an understanding of the conditions of learning. It took up the task of explaining the influences which had important effects on a student's score and, in particular, sought evidence, through its questionnaires on students and teachers, on the currently vexed problem of the extent to which school circumstances affected performance. Much of what produced differences in performance could not be explained, but it could be shown that the cultural and economic circumstances of the home background and the condition and organization of the school were two important influences. Despite recent views that school circumstances were not of great significance, studies of the IEA material in general, and special studies of the material on the Australian tests in science, were able to show that they were of considerable importance and to indicate the particular aspects of schooling that needed attention if students' performances were to be improved.[35]

---

[33] U. Ozolins and J.P. Keeves, *Concerning Leisure*, (IEA (Australia) Report 1975:3), Hawthorn, Vic.: ACER, 1975; R. Lewis, *Transition from Schooling at Year 12 to Work in Australia*, (IEA (Australia) Report, 1973:3), Hawthorn, Vic.: ACER, 1977; J. Anderson and J. Steinle, *Student Attitudes and Motivations towards School:* Profile of Secondary School Students in South Australia and Queensland, (IEA (Australia), Report 1978:1), Hawthorn, Vic.: ACER, 1978.

[34] A. Inkeles, The International Evaluation of Educational Achievement: [extensive review of the program]. *Proceedings of the National Academy of Education* (USA), 1977, 4, p.175.

Australian Studies in School Performance

This study was commissioned in 1975 by the House of Representatives Select Committee on Specific Learning Difficulties, and was largely funded by the ERDC. The ACER undertook the study at short notice, collected the data in October 1975, and reported in three volumes in 1976 and 1977.[36]

The principal researchers were Keeves and S.F. Bourke, who joined the ACER for the occasion on secondment from the army and subsequently remained as a permanent member of staff. Keeves's long experience with the IEA was put to good effect in using the

---

[35] M.J. Rosier, *Variation between Australian States in Science Achievement*, (IEA (Australia) Report, 1973:5), Hawthorn, Vic.: ACER, 1973.
J.P. Keeves; *The Effects of the Conditions of Learning in the Schools on Educational Achievement*, (IEA (Australia) Report, 1974:2), Hawthorn, Vic.: ACER, 1974.
M.J. Rosier, *Factors Associated with Learning Science in Australian Secondary Schools*, (IEA (Australia) Report, 1974:5), Hawthorn, Vic.: ACER, 1974.
J.M. Owen, *The Effects of Schools on Achievement in Science*, (IEA (Australia) Report, 1975:1), Hawthorn, Vic.: ACER, 1975.
Alison F. Wilson, *The Effects of Schools in Victoria on the Science Achievement of Junior Secondary Students*, (IEA (Australia) Report, 1975:2), Hawthorn, Vic.: ACER, 1975.

[36] J.P. Keeves and S.F. Bourke, *Australian Studies in School Performance, Volume I: Literacy and Numeracy in Australian Schools: A First Report*, (ERDC Report No.8), Canberra: AGPS, 1976.
S.F. Bourke and R. Lewis, *Australian Studies in School Performance, Volume II: Literacy and Numeracy in Australian Schools: Item Report*, (ERDC Report No.9), Canberra: AGPS, 1976.

IEA sampling technique and its practice of giving personal questionnaires to students and teachers, and by borrowing some of the items from the IEA language studies not conducted in Australia. The sample included 6600 10-year-olds, and 6200 14-year-olds in 600 schools drawn from every Australian State and the two mainland territories, and from government, Catholic, and independent schools. The task of the research team was to identify the language and number tasks that students would be expected to master on their way to becoming competent members of Australian society, to devise suitable tests of them, to determine the level of competence required in the tests and indicate the proportion of students who did not reach that level, and to explore the factors such as home environment, ethnic origin, sex, or specific learning disabilities that might affect the students' performance.

The process of evaluation was interestingly different in several ways from previous ACER work. The tests were not selective ones designed like CSTP and CSSE to pick out a number of students for scholarships, nor did they aim, like the curriculum survey and basic skills programs, to establish what the norm of the students' performance might be. They were criterion referenced. The tests had to indicate whether individual students could master a number of tasks set for them by examiners who were making a judgment of what they thought the students ought to be able to do at the ages of 10 and 14 respectively. The question of a cutting point or level of competence was an interesting one. At what level of performance can a student be regarded as having performed satisfactorily? Does mastery mean perfection on every item, or can something less exacting be accepted? It was a problem well known to teachers. The ACER research group approached it by making, first, a careful definition of each task that was to be assessed, and then working out a precise behavioural statement of a sub-task for which they devised the actual test item. The examiners had to make an estimate of what they

---

S.F. Bourke and J.P. Keeves, *Australian Studies in School Performance, Volume III: The Mastery of Literacy and Numeracy: Final Report*, (ERDC Report No.13), Canberra: AGPS, 1977.
A shorter report on the project and its implications was published by the ACER: J.P. Keeves, Jennifer K. Matthews, and S.F. Bourke, *Educating for Literacy and Numeracy in Australian Schools*, (Australian Education Review No.11), Hawthorn, Vic.: ACER, 1978.

would regard as a competent performance in each area, and adjust the cutting point by applying corrections for guessing and carelessness.[37]

The study found that 14-year-olds were reassuringly superior to 10-year-olds in performance but, not unexpectedly, that there was a considerable range of achievement. For most items in reading, writing, and arithmetic, between 85 per cent and 90 per cent of children attained the requisite level of mastery. In reading, about 3 per cent of 10-year-olds could not read simple sentences correctly and, although most 14-year-olds could read newspapers effectively, 0.8 per cent had not mastered the simplest reading skills. In writing, 27 per cent of 10-year-olds and 12 per cent of 14-year-olds could not meet the requirement of recording the essential points of a telephone message and, while the writing of a personal letter did not present great difficulty, 50 per cent of the 14-year-olds could not meet all the requirements of writing a formal letter of appplication for a job. In number work, the students were less proficient than in reading and writing. Nearly all were competent with whole numbers and simple money sums, but 4 per cent of 14-year-olds could not manage some straightforward tasks such as the multiplication of seven by six, and 8 per cent could not manage some simple division tasks. Substantially larger proportions had not mastered slightly more complicated calculations. The researchers reported that the teachers thought that 20 per cent of 10-year-olds and 15 per cent of 14-year-olds needed remedial teaching in number, and that probably less than half were receiving it.

When Australian students were compared with those of other English-speaking countries in reading comprehension, they differed little in performance from students of comparable age in Britain and the United States, and were marginally inferior to those in New Zealand. The researchers reported:

> The unequivocal conclusion to be drawn from the evidence concerning the achievement of mastery on the tests developed for this investigation is that a large majority of students in Australian schools are well able to read, to write, and to calculate satisfactorily so that they

---

[37] A detailed discussion of procedures was reported in Bourke and Keeves, *Australian Studies in School Performance*, Vol. III, Chapter 3 and Appendix 1.

> can learn from books and are not handicapped in the transactions of daily life.[38]

Nevertheless there appeared to be about 25 per cent of the 14-year-olds who lacked mastery of some of the fundamental tests. A small proportion of them were children with physical and mental handicaps. Most of these children, however, were to be found in disadvantaged groups within the community, such as Aborigines, migrants, families in economically deprived inner-city and rural areas.

The research team suggested that, in order to determine whether the standard of performance in schools was changing or remaining steady, some form of regular monitoring in the basic skills of literacy and numeracy was needed. It was this aspect of the study that created the most interest among educators and politicians and converted what had set out to be an examination of the extent and nature of some specific learning difficulties into an exercise in accountability. Late in the 1960s an accountability movement gathered strength overseas, particularly in the USA. Its advocates, critical of existing standards of schooling, held that schools should be made to account to their communities for the satisfactory progress by their students in what were held to be fundamental aspects of education. To account in an understandable and acceptable way involved the administration of tests of achievement in the basic areas in which an evaluation was thought to be desirable. One important outcome of the movement in the United States was the establishment of a national assessment program which, after four years of preparation, began an annual nation-wide testing of ten subject-matter areas in 1969 at four age levels, 9, 13, 17, and young adult.

In 1976 the Commonwealth Government, responding to criticisms fuelled by the ACER's report, that schools were not maintaining traditional standards, established through the ERDC a committee chaired initially by Radford and subsequently by Webster, to examine the question of a possible monitoring program. The committee recommended that there should not be an Australian equivalent to the national assessment program of the United States, but that the ACER should be invited to undertake a national program of literacy and numeracy testing at regular intervals. The recommendation was accepted by the Commonwealth Government and the state ministers of education, and in 1979 the ACER began to prepare for a monitoring project.

---

[38] Keeves, Matthews, and Bourke, *Educating for Literacy and Numeracy in Australian Schools*, p.28.

Four other interesting kinds of follow-up studies were undertaken by the ACER's staff. One project was designed to improve the identification of socially disadvantaged schools for the receipt of Schools Commission support. This was carried out by linking descriptions of living conditions in census collectors districts with the performance of students in the 1975 evaluation of literacy and numeracy. The second was an investigation of the effects of unemployment on Australian youth by studying the job history, personal and educational characteristics, and exposure to vocational guidance of the 17-year-olds who as 14-year-olds took part in the national survey. The third was an assessment of oracy to determine the essential listening and speaking tasks and the performance on them of 10- and 14-year-old students in Australian schools. The fourth was an effort to identify 10-year-old students who succeed in reading but have not mastered numeration, and to provide an experimental program for them. The development of basic competence tests—School Achievement Tests (SAT)—in a wide range of primary and junior secondary schools, which began in 1978, also came out of the climate of thinking that produced the evaluation survey. The project involved teachers and researchers from several state education departments and the ACER in devising progress tests for diagnostic work and review tests for summative evaluation by teachers, in the first instance, in reading, mathematics, and inquiry skills.

Other Evaluation Studies

A considerable number of evaluations were undertaken towards the end of the 1960s and throughout the 1970s. Several have already been mentioned in connection with social science, English studies, and ASEP. As its commitment to curriculum development and the construction of materials was phased out with the establishment of the federal Curriculum Development Centre, the ACER increased its interest in curriculum evaluation. In the 1970s, it was endeavouring to shape an image of itself as the leading test construction, evaluation, and survey research centre for education in

Australia. The ACER's evaluation services touched the whole range of educational activities.

Teacher education came under scrutiny with two studies, one done in conjunction with Monash University on in-service teacher education in Victoria, 1973–76, and the other, on the teacher development program of the Schools Commission, reported in 1979.[39] Certain educational institutions were studied and their work evaluated. Colleges of advanced education in Australia were reported on in 1970; Swinburne Community School, a venture in progressive education, was examined in 1972–73; and, beginning in 1977, staff development programs and pre-vocational education were the subject of two studies in the area of Technical and Further Education (TAFE). Several educational programs undertaken by government departments and statutory bodies have been assessed. In 1973, at the request of the Schools Commission, the ACER submitted a working paper to it and sent a representative to a conference on methods of evaluating its programs on disadvantaged schools and innovations. The teacher development program of the Schools Commission, as already mentioned, was evaluated by the ACER, 1976–79. For the Commonwealth Department of Education, an appraisal of the government's Education Program for Unemployed Youth was begun in 1978 and, in the same year, an evaluation of the adult migrant education program was undertaken for the federal Department of Immigration and Ethnic Affairs. The evaluation of migrant education was designed to produce a handbook on evaluation methods that could be used both by teachers of migrants and by teachers and teacher educators in general. The studies of TAFE programs had a similar aim.[40] In that way the staff of the ACER, by adding practical experience to its general knowledge of evaluation techniques, was rapidly building up a body of knowledge, skills, routines, and ideas that, it was hoped, would make it recognizably expert in the field of educational evaluation.

---

[39] Australian Council for Educational Research and Monash University, Faculty of Education, *In-service Education for Teachers: A Review of the Literature*, prepared by Margaret Batten, Melbourne, Vic.: Victorian In-Service Education Committee (VISEC), 1974.

——, *Questionnaire to Teachers*: Section of Final Report, Victorian In-Service Education Evaluation Project [VISEEP], prepared by Margaret Batten, Melbourne: VISEC, 1975.

——, *Detailed Studies of In-Service Education Programs*: Section of the Report [VISEEP], Melbourne: VISEC, 1976.

——, *School-based Teacher Development*, [VISEEP] Report, prepared by Lawrence Ingvarson, Melbourne: VISEC, 1976.

——, *Administration of In-Service Education in Victoria 1973–1976*, [VISEEP] Report, prepared by Lawrence Ingvarson, John Fyfield, Margaret Batten, Melbourne: VISEC, 1976.

Schools Commission, *National Evaluation of the Development Program*, prepared by Margaret Batten, Canberra: 1979.

Educational facilities and resources also came into the ACER's evaluation program. Science facilities in Australian secondary schools were investigated in 1975–76 by questionnaires, school visits, discussions with teachers, and the use of the IEA data bank for information on the students' performance. In 1978, in close collaboration with officers of the education departments, an extensive study of the staffing and resources of all government schools in Australia was commissioned by the AEC. The New Zealand Department of Education also joined the project, which included a study of policies as well as practices in the allocation and use of staff and resources. The analysis of educational policy is obviously inseparable from a thorough analysis of educational practice, but this was the first occasion on which the analysis of policies was to be a central part of the task. It marked a further stage in the ACER's involvement in educational evaluation.

Studies of Various Age and Social Groups

The ACER had a long-standing interest in the study of adolescents and their problems, and in particular those of the school leaver. A substantial study, 'involving most of the time of the general research staff', began in 1957 of adolescents in full-time and part-time education, and of the occupations and occupational mobility of adolescents aged 14 to 20. Some of the results were published by Spearritt and Oddie in mimeographed form, and other aspects appeared in a volume by Radford of statistical information on 114 000 school leavers.[41] Ten years later, the directors-general at the 1969 conference decided to suggest topics for research by the ACER. Their first proposal was 'school leavers'. Radford, in due course, returned to the subject to study those who left school in 1971–72, and a second volume on the topic was published in the Research Series.[42] With the growth of unemployment in the middle and late 1970s, an increasing number of studies were made on the problems and conditions of adolescent transition from school to work. Two were based on data from the IEA project[43], one other, already mentioned, looked at the effects of unemployment on the unemployed 17-year-olds who had taken part in the survey of literacy and numeracy, and a fourth, in 1979, reviewed and evaluated the Australian research that had recently been done on the transition from school to work, as a preliminary to more comprehensive surveys of several of the problem areas of the transition.[44]

---

[40] See particularly, J. Ainley and A. Fordham, *Between School and Adult Life*: An Approach to the Evaluation of Pre-vocational Education in TAFE, (ACER Research Monograph No.5), Hawthorn, Vic.: ACER, 1979.

[41] W.C. Radford, *School Leavers in Australia 1959–60*, (ACER Educational Research Series No.75), Hawthorn, Vic.: ACER, 1962.

Several studies were made of the educational achievements of various sub-groups in the Australian community. Marion de Lemos was responsible for a survey, completed in 1975, of migrant children in primary schools, and for a series of studies on the primary and secondary school population of Aboriginal children, beginning in 1971 in Victoria. She made another lengthy survey which commenced with a study of the language and conceptual abilities of pre-school children and moved into an investigation of differences in school readiness and achievement in the lower primary school, which demonstrated the importance of the children's language background and their socio-economic status. For the Catholic Education Office in Victoria, a survey was made of the performance and general adjustment of children in Catholic primary schools.

---

[42] W.C. Radford and R.E. Wilkes, *School Leavers in Australia 1971–72*, (ACER Research Series No.96), Hawthorn, Vic.: ACER, 1975.

[43] R. Lewis, *Transition from Schooling at Year 12 to Work in Australia*, (IEA (Australia) Report 1976:3), Hawthorn, Vic.: ACER, 1977; and M.J. Rosier, *Early School Leavers in Australia:* Family, School and Personal Determinants of the Decision of 16-year-old Australians to Remain at School or to Leave, (IEA Monograph Studies No.7), Hawthorn, Vic.: ACER, 1978.

[44] J.P. Keeves and J.K. Matthews, Transition from school to work—an emerging problem, In J.V. D'Cruz and P.J. Sheehan (Eds), *The Renewal of Australian Schools:* A Changing Perspective in Educational Planning, Hawthorn, Vic.: ACER, 1978, 242–61.
The ACER also printed the report of another independent study, for the Victorian Department of Youth, Sport, and Recreation: A.F. Wright and F. Headlam, *Youth Needs and Public Policies*, Hawthorn, Vic.: ACER, 1976.

Various ways of improving techniques in teaching special groups or in using new kinds of educational apparatus were the subject of research from time to time. One of the most notable was an experiment in closed-circuit television conducted jointly by the ACER and the De La Salle Brothers. Known as the Malvern Project, it involved several secondary Catholic and government schools, and ran from 1969 to 1971. An imaginatively conceived kit for teachers of English to migrant students was constructed by a small team at the ACER on behalf of the Commonwealth Department of Education and was distributed to schools in 1977.[45] Programmed learning was the subject of a small amount of research in the 1960s, and the possibilities of the use of the telecommunication facilities of the Australian Post Office were explored in a project which began in 1969 and led to a report in 1972.

---

[45] Australian Council for Educational Research, *Tests of English for Migrant Students* (TEMS), Hawthorn, Vic.: ACER for the Commonwealth Department of Education, 1977.

10

THE PROBLEMS OF GROWTH IN THE 1970s

A Period of Change

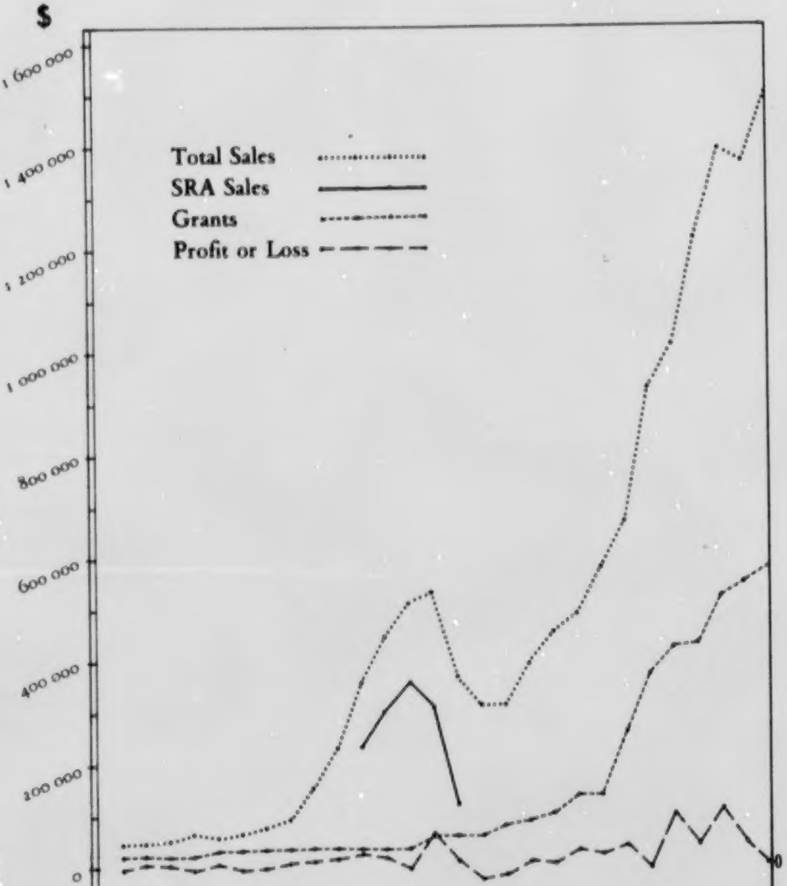
A considerable change began for the ACER towards the end of the 1960s. There had been intimations of it in the reorganization that Radford had made in 1964 in the internal organization, but there was little noticeable change until about five years later.

The upward growth in sales that had accompanied the ACER's association with SRA had dropped away since 1966, and the ACER's finances in 1968 and 1969 sustained one of their rare losses. Sales started to revive speedily in 1969. From 1970 on, the ACER was again solvent, and was to remain handsomely so, though with considerable fluctuations in profit, throughout the 1970s. As the sales position improved, so too did the income from government grants, which began annually to take an upward turn in 1968, and by 1972 was almost double that of 1968.

By 1970, there had been a marked increase in the amount of work which the ACER did on contract for government departments and various other institutions. In 1960, income from contracts had been only $3400, by 1965 it had risen to $102 370, and, in the next five years, by 1970, had more than trebled to $349 200. It reached $751 000 in 1974, and thereafter continued at a somewhat lower level to $508 000 in 1980. The onset of the contract era brought several problems.

There was a question of discrimination. As the ACER became known as an institution interested in contract work and requests to it increased, Radford found it difficult to refuse an offer. But there was a real danger that the growth of such work would distort the ACER's proper activities. The contracts were mostly for the construction of tests of which the CSSE series was the most substantial, and for undertaking surveys and evaluations. Some, such as the

The ACER's Income, Profit and Loss, 1953–80



telecommunications investigation for the Australian Post Office, were thought by some members of the executive and at least one director-general to be of marginal value.[1] But were they, as a whole, a move in the right direction? As the dependence on contracts increased in the latter part of the 1960s, the ACER appeared to be in danger of losing some control over the determination of its own program. If its main energies were to be absorbed by contract work offered in a somewhat unplanned way, it would be difficult for the ACER to plan the program of research and service it wished to undertake. Another difficulty accompanying the growth in contracts was a budgeting one. From its beginning, thhthe ACER, when asked to prepare special tests for an education or other government department, had always done the work at minimum cost to the client on the ground that the general Carnegie or, later, government grant, made annually to it, was a part payment for the service and the means of maintaining the ACER by meeting its general expenses. The approach was continued with the contracts in the 1960s. In consequence, the ACER under-estimated costs and sometimes found itself out of pocket. Staffing, too, became something of a problem. Additional staff had to be engaged temporarily to fulfil contracts and, since there was no guarantee that they could be transferred to another contract when the one on which they were working was completed, there was much movement and uncertainty among the staff. The position did not make for the best quality work or for the prompt dispatch of the contract work.

By the end of the 1960s, there was clearly a need to examine the activities of the ACER and rationalize its program and its finances. A beginning was made on this task when P.H. Partridge became president of the Council in 1969. Partridge was a distinguished social scientist at ANU who subsequently became the first chairman of the AACRDE and the chancellor of Macquarie University. He brought to the ACER's situation practical intelligence, clarity of mind, and an extensive experience of negotiation with public servants and politicians. He was the first of three very able and lively presidents—P.H. Partridge, S.A. Rayner, and P.H. Karmel—who headed the Council throughout the 1970s. Partridge saw the need to change the relationship between the Director and the executive. From that point the ACER's executive, which for the past 20 years had concerned itself mainly with administrative matters and left the development of the ACER very much to the Director, began seriously and continuously to discuss broad matters of policy and finance and the general organization of the ACER's work.[2] Moreover Partridge saw the importance of reaching a closer understanding with the Commonwealth Government and ensuring its support for the ACER's future development.

---

[1] Memorandum, 22 July 1971, Australian archives, Department of Education, ACER, General File No.77/1150.

Steps were taken by the executive in 1969 to firm up the ACER's program. They carefully scrutinized appointments and tried to get clearer and more systematic statements of progress on each project. They recognized that the ACER was moving into the study and evaluation of educational policy and into more socially related research without having recruited the appropriate staff for it. Radford, although a Fellow of the Academy of Social Sciences in Australia, was not at ease in the company of academic social scientists. If the new areas were to develop satisfactorily, he needed advice on possible lines of advance and the kind of qualifications to look for in new staff. P.H. Karmel was co-opted to the Council at the end of 1968 as a person who, with Partridge, could bring substantial knowledge and experience to bear both on a number of aspects of the social science area and on relations with state and federal governments. Karmel, then Vice-Chancellor of Flinders University, had been a professor of economics, and was to become chairman of the Australian Universities Commission and, later, of the Tertiary Education Commission. In 1979 he succeeded Rayner as president of the ACER.

The executive began in 1969 to review

> the ways in which ACER research programs originated, how the Council could ensure that its projects were important ones, how the overall program could be surveyed to ascertain major gaps in it, and what information about progress of projects and control over their time-span should be available to the Council.[3]

---

[2] Interview with P.H. Partridge, 2 November 1979.

[3] Minutes of ACER Executive Meeting, 4 September 1969.

They agreed that there should be an annual review by the executive, and regular consultation on the program between the ACER and the directors-general. To assist in the consultation, the executive recommended that, in response to their request, a representative of the directors-general of education and, in addition, a representative of the Commonwealth Department of Education and Science should be added to the Council.

They also began a series of approaches both to the Commonwealth Department of Education and Science and to the directors-general. Partridge, with the Director and executive, conceived a planned core program that should be able to depend on government grants for its continuance, independent of income from sales or contract work. This would assure regularity and continuity of work along the basic lines chosen by the ACER. They planned and costed such a core program, and argued the case for it with the federal and state authorities.

In March 1970, Ennor, Secretary of the Department of Education and Science, met the executive at the ACER and listened sympathetically to their proposals. Partridge reinforced the approach by talking with Ennor's assistant in Canberra. In July, Radford and Partridge addressed a meeting of the directors-general and submitted a memorandum which explained that 'an adequate planned program' would require a core staff of 26 and would cost not the current amount of the grant of $80 000, but an estimated $337 250 per annum.[4] It was, they explained, a goal they would wish to achieve in the reasonably near future, scarcely expecting that in 1980 they would still be well short of their target. The conference agreed to recommend an increase of 25 per cent over the present grant and asked the ACER to reconsider its case. In the following year, 1971, a revised case was put to the AEC which agreed to recommend to the state treasuries an increase of 40 per cent in the grant. Subsequent discussions by Partridge and Radford with the first assistant secretary of the Commonwealth Department of Education and Science, and then with the first assistant secretary and a representative of the directors-general together led to a substantial submission by the ACER to the federal government. The campaign managed to gain an additional $40 000, raising the government grant for the ACER for 1971–72 to $140 000, and it remained at that level for the following year. The federal government which contributed 50 per cent of the money did not surrender easily.

---

[4] Annual grants from governments, ACER memorandum to the Conference of Directors-General of Education, Brisbane, 30 July 1970.

With a change of government, however, the new Minister for Education proved to be very favourably disposed and the grant for 1973–74 was almost double that of the previous year. By that stage, several other federal bodies interested in educational research had come into being. Their presence and the inbred caution of treasury officers caused the federal Treasury to express concern about the grant to the ACER.

At a discussion on the grant with members of the Department of Education, the representatives of the Treasury raised several difficulties.[5] They were worried about the lack of demarcation between the areas of activity of the ACER and national bodies such as the AACRDE, Schools Commission, and CDC. On another occasion the Australian Universities Commission, Australian Commission of Advanced Education, the ACT Schools Authority, Technical and Further Education Council and the Pre-Schools Commission were also mentioned as bodies with powers to make research grants. The Treasury would have liked to see some co-ordinating body to establish priorities and clear lines of demarcation. On a similar theme, the Treasury saw problems in the ACER's claim to independence, while it relied heavily on government funds. The fact that it was not subject to government scrutiny meant a possible wastage of resources, they suggested, if it should indulge in activities of little priority or duplicate the work of other bodies. On the question of the actual grant, the Treasury was firmly of the opinion that it was simply a grant-in-aid and should not be regarded as funding tied to whatever the operational costs of a core program might amount to.

In any case, the Treasury stated, there was not enough money available to meet the amount of the requested grant. From 1974 on, with a tightening of the federal budget, the need to limit increases 'in peripheral areas of expenditure' was continually urged by treasury officials. The grant to the ACER, however, did rise noticeably each year, except for 1976, from $267 018 in 1973 to $590 000 in 1979. The Treasury did not appreciate the prodding it received from the AEC. From the first matched grants in 1946 made jointly by the federal and state governments, it had been the federal government that had determined the amount. Although the AEC might suggest what it thought to be an appropriate grant, it should not assume that the federal government would agree with its thinking. In 1976 the then Prime Minister, J.M. Fraser, who had previously been a Minister of Education, put the position more forcibly to the Premiers of Victoria and Queensland who had been urging the ACER's case. He firmly stated that the level of the Commonwealth grant was not determined by any other body, and that the States, if they so wished, could always provide additional funds.[6]

---

[5] Australian Council for Educational Research, Commonwealth Grant 1965, discussion with Treasury, 14 February 1974. Australian archives, CRS A 1642 Item 74/3797 Part 2, Department of Education, Central Office Correspondence Files, Single number series 1967.

When Rayner succeeded Partridge as president of the Council in 1973, he continued the vigorous policies that his predecessor had initiated. He and Radford received solid support from the directors-general of education, from the Commonwealth Department of Education, and from the ERDC in a continuing battle with the federal Treasury to raise the grants to a level which would give the 'ACER a substantial core of staff and enable it to cope with continually increasing costs. Throughout the long period of argument, it was urged that the 'ACER core staff should in fact be regarded as a special research unit providing services nowhere else available in Australia'.[7] During the 1970s the ACER had been trying to consolidate into just such a unit. It was a unit, moreover, used by both the Commonwealth and the States in various projects of importance to them, and its funding was, in the view of the Premier of Queensland, 'an excellent example of government collaboration in a federal system'.[8] In 1970 an officer of the Commonwealth Department of

---

[6] Memorandum, 15 December 1976, Australian archives, Department of Education, ACER Commonwealth Grant-in-aid 1965–, File No.74/3797 Part 4.

[7] Memorandum, Department of Education, 13 November 1975, Australian archives, Department of Education, ACER Commonwealth Grant-in-aid 1965–, File No.74/3797 Part 3.

[8] J.B. Petersen to J.M. Fraser, 19 November 1976, Australian archives, Department of Education, ACER, Commonwealth Grant-in-aid 1965 -, File No.74/3797 Part 4.

v

Education and Science, when asked for an opinion on the ACER by a member of the Department of Immigration which was contemplating some financial support for an ACER project, let him know that 'he could have confidence in the work they did', and that they were already involved in a number of projects under federal grants.[9]

The directors-general at their conference in 1967 had expressed concern at a proposal from the ACER for increased financial assistance and in 1968 stated their reluctance to recommend increases for the next three years.[10] Gradually, however, they became more amenable to an increase in the grant, and by 1974 agreed, and persuaded their Ministers to agree, that governments should commit themselves to a steady increase in the ACER's core professional staff and the grant to support it.[11] There was, nevertheless, a constant niggling concern that the ACER's work was not as relevant to the interests of government schools as they would like it to be. In 1959, their conference passed a resolution asking the ACER to give 'reasonable priority' to tests requested for use by state education departments. Ten years later, in 1969, they had an extensive discussion on the relevance of the ACER's research, sparked off by a paper prepared for them by the Queensland Department of Education. They resolved that, to ensure that relevant research was undertaken, they should suggest research topics to the ACER, and, as a first item, proposed a survey of school leavers. The discussion also led them to agree that they should have direct representation on the ACER Council. When the ACER in 1956 had proposed that they be formally represented, they had declined and expressed satisfaction with the arrangement, operating since 1949 for them and the then Commonwealth Office of Education, by which they merely sent an observer to attend the annual meetings of the Council. Their first representative, A.V. Gough, at the annual meeting of the Council in

---

[9] Memorandum, 9 April 1970, Australian archives, Department of Education and Science, ACER, Role in Australian Education, File No.70/1128.

[10] Conference of Directors-General of Education, Sydney, 1967, Minutes p.7; Melbourne 16–22 October 1968, Minutes p.3.

[11] Minutes of Conference of Standing Committee of the Australian Education Council, Hobart, 21–22 February 1974, p.8; Minutes, AEC Meeting, Hobart, 28 February–March 1974, p.7.

1972, complained that much of what the ACER was doing was not relevant to many of the problems on which he and his fellow directors-general needed help, and that better and more frequent communication was necessary between the ACER and the state education departments.

Despite occasional expressions of dissatisfaction the directors-general, by the mid-1970s, had come to value the ACER, to entrust it more and more with surveys and evaluations in which they were interested, and even to take a somewhat proprietorial view of it. At their 1973 conference, for example, they 'spoke strongly in favour of retaining their share in funding ACER activities', and they were ready to encourage their ministers to chide the Commonwealth Government when it did not agree to raise the ACER's grant in 1976.[12]

The Contribution of W.C. Radford

The years of unease in the early 1970s and the annual and prolonged battle for an adequate government grant took their toll of the Director. He died in November 1976, seven months before his intended retirement.

For 20 years Radford had been a man of note in Australian educational circles. He was a wise person whose ideas and advice were valued by other educators. Throughout his directorship, he carried quietly and conscientiously the tough, and sometimes punishing, three-fold job of developing the work of the ACER, of analysing and promoting Australian educational research, and of acting as an interested but independent commentator on and contributor to Australian education.

He made the ACER sensitive to the needs of Australian education to an extent that it had not previously achieved, he encouraged it to develop a wider range of research and service, he consolidated its reputation in Australia, and he gave it an international dimension. He was able to initiate strategic research in the ACER, research that fitted the thinking of the time and could, it was hoped, be seen by education departments to be of significant value to them at that stage of their thinking and planning. The ACER's clients did not always agree that its work was relevant to their interests or sufficiently pertinent for the classroom teacher, but they continued to support it and commission work by it.

---

[12] Resolutions of Conference of Directors of Education, Brisbane, June 1959; Minutes of Conference of Directors-General of Education, Adelaide, 10–16 September, 1969, p.8–9; Minutes of Annual Meeting of ACER Council, 2–3 November 1972; Minutes of Conference of Directors-General of Education, Sydney, 20–26 September, 1973, p.3.

The ACER, from its beginning in 1930, had built up a small reputation as an organization for promoting and publishing worthwhile research. The reputation grew during the war years and in the immediate aftermath. It was during Radford's period as Director that its reputation was consolidated. The ACER became sufficiently large to command attention; it became expert in a range of research fields; and it was generally reliable in its production schedules and competent in its research undertakings. By the 1970s it had become well established as a consultant and research organization in Australia.

In educational research, Radford's main strength lay in research management rather than in the conduct of research itself. His own research was sound but not memorable. The contribution of the ACER under his management was, however, considerable, and it was fitting that, in 1964, the institution that he directed and, in 1972, he himself should have been awarded the Mackie Medal by the Australian and New Zealand Association for the Advancement of Science for their 'notable contribution to education in Australia'. Radford's work was further acknowledged by the conferring of the honorary degree of Doctor of Laws at Monash University in 1972, and by his admission as an Officer of the Order of Australia (AO) in 1976. His unique contribution, however, to the management of research was in the sustained analysis he made of the current state and needs of educational research in Australia—an analysis which contributed to the establishment of the research grants committee, AACRDE (ERDC), and the professional association, AARE. It was a piece of research statesmanship which he shared with others such as Dunn and Bradshaw, but which had the mark of his own tenacity and breadth of outlook.

Like his predecessor, Cunningham, he was a cautious person, but had a sufficiently progressive view of education to keep him ahead of current educational practice. He observed and digested local and overseas innovations with great interest and thoroughness. In his many writings and speeches, he argued the need for educational reform and suggested its direction in a way that was widely acceptable because it represented a modest and feasible advance and because it was expressed with obvious sincerity. A fellow member of the Committee of Enquiry into Education in South Australia found him 'down to earth, very solid, and very good value', and his fellow director in the Scottish Council for Research in Education, who saw much of him on committees overseas, remembered him with a high opinion as a person who 'said little but it was very much to the point'.[13] He worked hard and thoughtfully at whatever task he took in hand. A fellow member of a charitable organization which he had served for almost 30 years wrote aptly of 'his sensitive compassionate nature, his exceptional intellectual ability and breadth of vision, his strong sense of personal service, and his unsparing devotion to duty'.[14]

Radford's career was fundamentally one of service to the educational community. It was shown in his membership and sometimes chairmanship of committees of inquiry in Victoria, South Australia, Queensland, Tasmania, ACT, and Zambia, but more often in consultations in person and by letter with many individuals. His educational advice was asked in many places by governments and persons. It was offered temperately, judiciously, and responsibly.

The Changing Requirements of the ACER's Staff

Besides the directors-general, and the governments and teachers they represented, the ACER had two other important constituencies to consider, its own staff and the Institutes.

The ACER began in two rooms in the T & G Building in the central business district of Melbourne in 1930. During its first 20 years, it gradually acquired a little more space in the same building and an area for sales, storage, and dispatch nearby in Flinders Street. In 1958 it moved to another part of central Melbourne into what was known as the University Building in Lonsdale Street. In the same year the Council was formally incorporated under the Victorian Companies Act, and henceforth was to be known as the Australian Council for Educational Research (Incorporated) until

---

[13] These remarks were made in personal interviews.

[14] *Legacy Bulletin*, 7 December 1976.

1976, when a revision in Memorandum and Articles of Incorporation, made necessary to enable a member of staff to become a voting member of the Council, changed its name formally to The Australian Council for Educational Research Limited. The stay in Lonsdale Street was short. It moved again in 1963 eight kilometres out of Melbourne to a site in Frederick Street, Hawthorn, beside the Glenferrie railway station. There it built its own two-storey office block and acquired three small cottages next door as an overflow. In the 1930s the Council had decided that when the time was appropriate it would consider moving its headquarters to Canberra. In the 1970s, with the necessity to negotiate frequently with the Commonwealth Government and its various educational instrumentalities, the move had much to commend it. An opportunity presented itself in 1972 to move into a proposed national education centre in Canberra, but after serious consideration by the executive was turned down.[15] As the staff expanded still further, the ACER hired additional premises for its test division in an old drapery store nearby in Glenferrie Road. In 1979 the main building was enlarged and formally named Radford House, and the whole staff was consolidated on the one site.

The shift and variation in premises was in a minor way symbolic of the internal life of the institution. At the beginning, small, compact, and intimate, it began to spread and divide as the test group was formed and increased in importance. A short-lived effort brought them together again, and then, once more, as the staff increased in the 1960s and short-term appointments multiplied, it began to fragment. The varying interests were brought back together by the mid-1970s and given a framework under a new Director, but it remained to be seen whether there was also a community of intellectual purpose.

There is an inner life to an institution which shows itself in various ways. The atmosphere within the ACER was characteristically warm and pleasant throughout most of its history. Occasionally some members of staff were not much liked, but the benign and encouraging attitude adopted by both Cunningham and Radford and the generally agreeable contacts among the staff made the institution a very humane and pleasant one for all its employees of every level. The ease of relationships was demonstrated in the episode, in the post-war period, of the packer at the Flinders Street store who occasionally used to entertain the research staff lavishly. His efforts were much appreciated until it was discovered that he was not sending the items out to the clients but pocketing the postage money and using it for the entertainment.

---

[15] Minutes of ACER Executive Meeting in Canberra, 16 February 1962; Minutes of ACER Annual Meeting of Council 2–3 November, 1972.

Personal and professional contact was encouraged by morning and afternoon tea breaks in a common staff room presided over by Margaret Palmer, the friend and confidant of every member of staff, from the time the Council moved to Hawthorn until the present day. A staff association was established in 1972 and in its early years it promoted some lively discussion. It was mostly concerned with staff welfare and staff participation in the organization of the ACER; but it did sponsor regular meetings for the discussion of the ACER's policies and practices. Among the research groups it was unusual, however, to find the development of an approach distinctive of any group or of the ACER as a whole for any appreciable length of time. Three periods in which it did become apparent were with the wartime group who had a strong orientation towards guidance and psychometrics, with the early test construction group of the 1950s, and with the later group who worked on the CSSE and related tests towards the end of the 1960s and early 1970s. It is interesting that all three were test development groups, and were interested in examining and encouraging individual differences in children, and in using tests not only for selection purposes but also to influence educational programs in what they conceived to be desirable directions. Perhaps the promotion of the individualization of teaching and the use of testing to improve the teaching and learning process was as close as the ACER, as an institution, came to the formulation of an agreed approach to education. Certainly it would be possible in each generation to name many members of staff in much of whose work these two ideas were prominent. Characteristic representatives of this line of thinking among the research officers on the staff of the ACER would be D.J.A. Verco in the 1930s, G.D. Bradshaw in the 1940s, D. Spearritt in the 1950s, and L.D. Blazely in the 1960s. Verco was skilled in psychometrics and guidance, was seconded to the ACER for two years, and subsequently served as a member of the Council and became Director-General of Education for New South Wales; Bradshaw and Spearritt, who have already been mentioned, subsequently taught educational measurement in Australian universities and became members of the Council; Blazely, also statistically sophisticated, was on the ACER's research staff from 1962 to 1966, took part in the beginning of the CSSE, and was subsequently in charge of the research branch of the Tasmanian Education Department. Each was a person with an active mind, an enlightened view of educational measurement, and an interest in improving each individual's chance in education. They are exemplars of the ACER's past.

Others such as Fitzgerald and Bennett were certainly not typical. They were not trained in educational measurement and they were interested in the play of social forces on education. Their breed did not flourish at the ACER, and the institution always lacked any well-developed social philosophy or any solid commitment to an educational philosophy grounded in social analysis. The pattern for the 1970s was less clear. It was certain only that the long-standing model was under considerable question.

Though existence may have been congenial, it was never placid in the 1960s and 1970s. An institution which was involved in contract work always had deadlines to meet. Deadlines produce tension. So, too, does uncertainty. The changes through which the ACER moved in this period induced both financial and professional uncertainty. Blazely, in describing his experience, said, 'It was never a sort of very safe existence. The word was always around that we were on our last dollar. But we always got through'.[16] Financially the ACER was nearly always in reasonable shape but the annual wrangle for an increase in government funds helped to produce uncertainty. Without adequate and continuing government grants, it was impossible to build up a core of permanent research workers to cover the desired program. The core supported by government grants, in fact, was always very small, and prospects of promotion too were therefore small. The estimate of an adequate core staff, made in 1970, had been 26. In 1973 the number was 9½; in 1974 it was 13½, and in 1975, 17; and there it remained till 1980. Around that nucleus was a group of semi-permanent researchers engaged to work on the various contracts that the ACER had accepted. At the end of the contract, the researcher might move to another contract for which he was more or less suitable or have to leave the ACER if there was no contract work available. Some of the contract staff were able to remain through several contracts for many years. The same situation applied to the clerical and technical staff. Around the contract staff there was a further group of non-permanent staff, those on secondment from schools or colleges of advanced education. According to the task for which they were employed, they might stay for a few months only or sometimes for two or three years.

---

[16] Interview with L.D. Blazely, September 1977.

It was no wonder that, as universities and colleges of advanced education expanded, particularly in the early 1970s, the ACER lost a significant number of valuable members of staff to the greater security and attractiveness in the positions offered by those institutions.

In effect, the ACER had grown, for most of its existence, without enough consideration for the financing and employment of an adequate full-time permanent staff. It had a tendency to take on too many projects and try to meet its commitments by using short-term and temporary staff. For the most part, it managed to maintain good quality work largely because it had persons of good quality in key positions. But by the 1970s, it had become apparent to Partridge and his successors, Rayner and Karmel, and to the Directors, Radford and subsequently Keeves, that stability and quality could be best achieved and maintained by making a concentrated effort to build up a core staff of sufficient size and merit to manage efficiently and expeditiously the research and services judged to be central to each of the areas in which the ACER wished to make a significant and continuing contribution.

The Functions of the Institutes and the Changing Administrative Structure

Soon after Radford became Director, a meeting of representatives of all the State Institutes of Educational Research was held prior to the ACER's annual meeting in 1956. From the conference came a statement which, with minor adjustments by each Institute, was subsequently used as a definition of the functions of the Institutes:

> The object of the Institute is to act as a learned body devoted to the promotion of study and research in education, emphasizing the scien-

tific study of educational problems, by means of the following activities:

- (A) disseminating
    - (i) research, either
        - (a) the results of specific pieces of research done by members, or
        - (b) reports on the collection of research information;
    - (ii) opinion and accounts of practice in education;
- (B) participating in
    - (i) the discussion, planning and criticism of research projects;
    - (ii) the active carrying out of research projects;
- (C) establishing areas of contact with other educational groups.

The Institutes never became vigorous centres for the pursuit of educational research. Cunningham had pointed this out, a little sadly, in 1939, and the Queensland Institute which, in the 1950s, had been the most productive, confessed in 1961 to 'our relative inactivity in this field', and suggested the possibility of a joint project with other Institutes who, however, had also been inactive in research. The project which did not eventuate was, interestingly, to be an evaluation of secondary-school curricula. It neatly hit the three emerging interests of the 1960s: secondary education, curriculum studies, and a trend in educational research towards evaluation. The latter two, curriculum and evaluation, were to strike a responsive chord in all the Institutes, and a reasonable amount of their activities throughout the 1960s and 1970s was to be concerned with them.

They worked mainly in three ways. They had regular meetings for lectures and discussions on topics of research or general educational interest, and some of them established annual memorial lectures and prizes for the encouragement of student research workers and to honour earlier members of distinction. Thus three of the ACER's Victorian pioneers were commemorated when the Victorian Institute became responsible for a Frank Tate and a John Smyth memorial lecture, and a G.S. Browne prize for educational research. Several Institutes ran more ambitious study groups, workshops, and public lecture series on topics of current significance. For the most part, these were very successful enterprises. Some of the workshops were training sessions designed to bring members of the Institute, classroom teachers, or other interested persons up to date in specified research techniques. The Western Australian Institute, for example, organized a two-day workshop in 1978 on sampling in survey research run by a member of the ACER's staff; and New South Wales, for its jubilee celebrations in 1978, organized a series of lectures on research as a basis for educational policy-making which were published by the ACER.[17] The Institutes also acted as commentators on ACER policies and programs that were submitted to them from time to time for advice. They received the ACER's publications, and they disseminated news of their own activities and ideas through small bulletins or journals in which lectures given to the Institute and other topical information were published.

The Institutes maintained a formal link with the ACER through the annual meeting to which each sent a representative initially on a three-year term and, since 1961, a four-year term. It was not a very significant link. Most representatives of the Institutes did not appear to have a sufficiently close knowledge of the ACER's activities to make a very valuable contribution at the meeting. The real governing body of the ACER had always been the Council's executive, dominated in its first ten years by its first president, Tate, and afterwards for nearly 30 years by its Directors. In the 1970s, with strong presidents and knowledgeable members of the executive to give support, the executive was an important force. Throughout its history, the executive had seldom had a representative of the Institutes among its members.

The Council from the beginning consisted of six elected Institute representatives and three co-opted members. The co-opted members, who were usually, but not necessarily, members of Institutes, were not elected representatives of the Institutes. In 1960 the number of co-opted members grew to four, and in 1966 there was a considerable discussion on enlarging their number still further. Fundamentally it was argued that the ACER had grown to such a stage that it needed to be able to select its Council and particularly its executive, from a range of persons with wider educational interests, with skills in management, finance, and social and educational policy, as well as in educational research. The Victorian Institute protested vigorously, but in vain, that the elected representatives should always outnumber the co-opted ones so that the institution should not become a self-perpetuating one and that control should rest with persons professionally connected with educational research. The Council at its meeting in 1966 agreed to enlarge itself by co-opting another four to six members, and in 1970 added two further members, representative of the directors-general of education and of the Commonwealth Department of Education and Science. In 1977 a staff representative was added.

---

[17] J.S. Shellard (Ed.). *Educational Research for Policy Making in Australia*. Hawthorn, Vic.: ACER, 1979.

By 1970, there were on the Council six representatives of the Institutes and, including the Director, ten other persons of whom seven had been co-opted. In 1980 the Institute representatives had been reduced to five with the disappearance of the Tasmanian Institute, the number of co-options had risen to nine, and there were the four other official representatives. The Institutes were outnumbered more than two to one. Rayner, in 1973, became the first Institute representative to become president and, when his term as Institute representative ran out, he was co-opted. Thus in 1980 the executive again contained no person elected by the Institutes.

The Institutes, though performing useful functions within their States and, in a limited way, in respect to the work of the ACER, were clearly not, and never had been, of central importance in the ACER's organization and work. In the 1960s and 1970s, their influence within the ACER had declined still further. They did not have a significant role in the government of the institution and there was no convincing argument put forward why they should. But was it possible for them to perform other important roles? It was this question that agitated the committees of the four more vigorous Institutes during the 1970s. During that period, they worked out a variety of programs each of which had some promise of holding them together. In some measure they became sounding boards for the ACER's policies, they tried their hand at evaluation and informed discussion of educational issues, and they acted as disseminators and teachers for the ACER's ideas and products. None of these was the kind of creative role that had been envisaged when they were established, but each was a usefully judgmental role which might give good value to Australian education and bring satisfaction to the Institutes' members.

The Task of the Third Director, J.P. Keeves

In July 1977, a special general meeting of the Council appointed J.P. Keeves, out of a field of 11 appplicants, to be the third Director of the ACER in succession to W.C. Radford. Keeves was 52 years old, a graduate in science of the University of Adelaide, with postgraduate qualifications from Oxford, Melbourne, ANU, and Stockholm universities. His graduate work was marked with several honours and distinctions, and he obtained a doctorate degree from both ANU and the University of Stockholm. In 1977, he was elected a Fellow of the Academy of the Social Sciences in Australia. He had taught, principally science and mathematics, for about 15 years before joining the staff of the ACER in 1962. In 1967 he left the ACER to become a research fellow in the Research School of Social Sciences at ANU and to work for his doctorate. He returned to the ACER in 1972 as Associate Director, Research and Curriculum, and retained that position until his appointment as Director.

Keeves, in his first period at the ACER, became deeply involved in the IEA project and attended a number of meetings on it with leading educators overseas. This was a broadening experience which developed in him an interest in studying the impact of selected social factors on education. At ANU, he pursued the interest further and became closely involved not in a school of education but in a wider school of social science. Out of this experience, he produced a major publication, *Educational Environment and Student Achievement*. He has been a productive researcher, better equipped with the statistical and other skills of social research than either of his predecessors, and possessed of considerable administrative drive.

On his succession to the directorship he faced three principal tasks. The ACER had clearly started to shift from a situation in which it was dominated by test sales and test construction to one in which a wider and more balanced program of research was becoming its main concern. The executive had stated in 1969:

> The Council should aim to get the ACER to the stage where it is recognized as a central part in the structure of educational research and is supported accordingly.[18]

---

[18] Minutes of ACER annual meeting, 23–24 October 1969.

The new Director had to take steps to confirm the movement and ensure its continuance.

The ACER's interest in surveys and evaluation in the 1970s was the main alternative to its earlier predilection for testing. But evaluation studies could be, fundamentally, testing programs. In such cases, there was virtually no shift in the research program. The Director's problem was to try to ensure that evaluation was something more substantial. His task was to try to see that evaluation was not merely a process of measuring and reporting educational data accurately, but that the evaluator saw the data as part of a wider social and cultural context which it was his job to improve. The ACER's task was still as it was in 1930 to keep education 'alive and alert', but the intervening half century had given research in it the richer context that Keeves had experienced in his IEA studies and in the school of social science at ANU.

The new Director had, too, the task of securing increased support for the ACER to build up and maintain its core of research staff. He came to office in a bleak financial climate. In his first year of the annual battle for government grants, he was informed that there was an interdepartmental committee of the federal public service about to undertake a review of all grants-in-aid.[19] The committee recommended no increase in the grant for the 1977–78 year and, also, ominously suggested a phased abolition of the grant. In a spirited defence of the ACER, an officer of the Commonwealth Department of Education wrote:

> The recommendation for phased abolition runs counter to the establishment of ACER as a Commonwealth-States research agency, ignores the role of the AEC, and in doing so repudiates the principles of Federalism.[20]

Dunn, the chairman of the ERDC, also came to the support of the ACER for an increased grant, urging, in vain, that it be financed on a triennial basis. The federal government eventually did not act on the committee's recommendations; it agreed to raise its grant by $44 000, and has continued up to 1980 to raise its grant by small amounts to keep in step with inflation.

---

[19] Letter to J.P. Keeves, 13 January 1977, Australian archives, Department of Education, ACER Commonwealth Grant-in-aid, 1965–, File No.74/3797 Part 4.

[20] Memorandum, 10 June 1977, Australian archives, loc. cit., Part 5.

There were, however, several other less obvious but nonetheless vital problems that the Director had to ponder. They were products of the ACER's 50 years of history, perennial difficulties that had emerged more urgently in the more volatile climate of the 1970s.

The Crucial Problems of the ACER

The ACER throughout its history struggled continually with three fundamental and interrelated problems. They were the problems of viability, credibility, and identity. To be viable, the ACER, once it ceased to be supported by American philanthropy, had to have clients—clients who would buy its products and find it supportive of their work. The most feasible clients were governments.

During World War II, the ACER provided tests for the Commonwealth Government and was a considerable support to the war effort. The Commonwealth reciprocated by financially supporting the ACER. The States with some hesitation also decided it was worth supporting, and New South Wales, and later Victoria, began to buy large quantities of its tests. It remained viable during the 1950s and 1960s by selling more tests and packaged materials, though the country's growing inflation caused difficulties in its finances from time to time. In the 1970s special research projects, commissioned and paid for by various authorities, helped to keep the ACER's staff at work. It was a tricky business—first, to ensure a continuing supply of projects and to see that project income at least matched project expenses, and secondly, to recruit competent staff at a time when commonwealth and state research branches, universities, and colleges of advanced education were all expanding their staffs.

Viability depended very largely on the extent to which the ACER could maintain credibility with its clients. Two factors were particularly important in the matter of credibility: the Director and staff, and the nature of the program. The two Directors who covered most of the ACER's first 50 years were solid reliable men. They could be trusted to offer sober and well-considered advice. At the same time they could be seen to be up to date. They knew and could be consulted about the latest educational developments in Australia and overseas. They might at times introduce uncomfortable ideas and critical persons by organizing a New Education

Fellowship Conference or widely publishing the unflattering views of some American educators on Australian education; but, fundamentally, they understood Australian education and Australian society and had the kinds of judicious and forward-looking ideas that made them acceptable members of review committees. They and their staff could also be seen to be competent and to be closely in touch with the practical world of the schools. The program which the staff operated, by and large, was acceptable to and could be understood by the clients. The staff could produce to order efficient and acceptable tests, they could organize and analyse Australia-wide surveys, they could produce useful curriculum materials, and they could readily organize interstate projects when called upon to do so. A varying proportion of the full-time staff, for much of the ACER's history, were teachers seconded temporarily from various education departments. The figure was about 50 per cent in 1940, 11 per cent in 1950 and 1960, and 30 per cent in 1970. The secondments could be relied on to see that the interests of practising teachers were kept in mind, and they would bring back useful skills to their respective education departments at no cost to their employers. For credibility, the ACER had to maintain its image of reliability, knowledgeableness, competence, practicality, and Australia-wide interest. It started to work on this from the very beginning in 1930, and it sustained its part with remarkable consistency.

But what part was it really playing? Beneath the image there was, presumably, an identity. The ACER's most crucial problem was that of deciding upon and convincing itself what its job really was. Viability was a concern for Cunningham once the Carnegie grant ran out and for Radford who, for most of his term, was considerably worried by it; but financially the institution, though it encountered several tight periods, remained solvent and for the most part expansive. What was it really trying to do?

There was a reasonably clear task for it during its first two decades, though it made little effort to state its role precisely. It took up the research that its Director and executive thought from time to time to be useful for Australian education; it published all the research that the Director thought to be reasonably well done; it tried to encourage more educational research; and it acted as a general stimulus to Australian education. It was unselfconscious about these activities. It considered carefully before it took on any task, but it did not agonize over its place in Australia's educational research pattern.

In the mid-1950s when the second Director took over, educational research facilities throughout Australia had shown considerable development. The university schools of education had expanded and become very much interested in research, the state education departments had established research branches some of which were reasonably productive, and the Commonwealth had set up an Office of Education with a well-staffed research section. Could not all the ACER's functions be performed by some or all of these bodies? The ACER's response was three-fold. It developed a powerful specialization, the test division, whose resources were unmatched by any other Australian agency; it argued the need for an independent research body uncommitted to teaching or to government policies and day-to-day practical service; and it became, mainly through its Director, a monitor of educational research in Australia, surveying, assessing, organizing conferences, and making recommendations about the state of the discipline. These developments forced it to look more closely at its own role, and to reorganize its own activities. After 1970, with the establishment of important new federal agencies, it became remarkably self-conscious.

Being responsive was part of the business of being credible. To maintain credibility, the ACER had to respond to the needs or fancied needs of teachers and administrators, but it had to respond in a superior way. It had to be able to demonstrate that it understood the need, that it had technical competence beyond that of the teachers and administrators to handle the situation, and that it could bring to bear the best and latest information and techniques. It had, in effect, to be responsive both to the problems of the local clients, and to the movements in educational practice and ideas, and in educational testing and research throughout the world. It needed, too, the skill to apply its wider perspective to the problems at home, and to educate its clients to accept and see the worthwhileness of its new approaches. In the 1960s and 1970s, there were many examples of this level of responsiveness. Radford, for example, in 1968, wrote, 'In test development we are at a turning point'.[21] The ACER was moving away from standardized achievement tests, and was considering a greater emphasis on entry tests before pupils begin a particular study, on diagnostic tests and appropriate remedial material, and on graded mastery tests in content areas and intellectual skills. The change in thrust eventually picked up, in 1973, the recent North American interest in item banks to provide test material to class teachers for grading and diagnostic purposes and for the moderation of the standards of achievement between schools. The ACER endeavoured to spread its involvement in item banking by recruiting a considerable number of seconded teachers to work on the development of items and by organizing a number of workshops for teachers.

---

[21] Australian Council for Educational Research, *Thirty-eighth Annual Report 1967–1968*, Hawthorn, Vic.: 1968, p.39.

A responsiveness that would both meet the current management needs of schools and help them move beyond their present perspectives was an important characteristic of the ACER. It was something that had to be continually worked on and built into the ACER's identity. The ACER's staff had to keep in touch with the schools, with current educational and research literature, and with movements of thought and practice overseas. In its early years, this presented very few problems. With a staff of three or four of whom one or two were seconded teachers, it was enough if the Director maintained touch with each State and kept up to date by reading, consultation with visitors, and occasional overseas trips. In the 1960s and 1970s, the growth of the full-time research and test development staff, involved in core and contract work, to 20 in 1965, 32 in 1975, and 35 in 1980, changed the nature of the problem. The Director was still of great importance, but the ACER's work was no longer identified with him and his particular skills. The presence of the Assistant Director, Dunn, an enterprising, restless, driving force, helped to strengthen the image. But measures had to be taken, too, to ensure that the staff as a whole maintained the desirable characteristics. A decision by the Council in 1953 to grant six months study leave after seven years service was an early recognition of the importance of professional refreshment. The Director in 1956 emphasized the growing need. 'There is a danger', he wrote, 'in our travelling in a rut of daily activities, and not seeing the constantly expanding horizon'[22], and he proposed to arrange the

[22] Australian Council for Educational Research, *Twenty-sixth Annual Report, 1955–1956*, Melbourne: 1956, p.12.

staff time-table so that there would be more opportunity for reading, discussion, and visits to schools. In 1970, one senior member of staff accepted another position during his study leave and did not return to the ACER. The Director and the Council were greatly perturbed by this event and during the course of the next year, substantially revised the conditions of study leave to try to ensure that it would bring benefit to the institution as well as to the individual. During the 1960s and 1970s, the IEA projects provided opportunity for several members of staff to travel overseas, each year others attended conferences overseas or travelled on study leave, and the ACER became a regular stopping place and centre of consultation for interesting overseas visitors. In 1979, 25 such visitors were listed, several of whom stayed for extended periods.

The ACER managed to establish and maintain itself as a knowledgeable research institution which mediated new ideas and their practical applications to the Australian educational system through its research and related activities. Nevertheless there was always the problem of having to decide how long to pursue one line before moving to another. The ACER had to be ahead, but it had a reputation to maintain as a sound and sensible institution. To what extent should it function as an initiating agency, trying out and promoting new ideas and, when they had taken on, moving to a fresh area? How far could it maintain an identity as a progressive leader without becoming a sort of will-o'-the-wisp? There was a danger that by seizing on some current fancy it would promote an ephemeral activity of little value. It tended therefore to develop the device of evaluation. Instead, for example, of promoting what looked like a promising new reading program (SRA), it first undertook an evaluation of it in conjunction with the Victorian Education Department and subsequently proceeded, for the next seven or eight years, to boost its finances by the widespread sale of what could then be seen to be a well-attested learning aid. Similarly, when programmed learning appeared in the early 1960s, the ACER's first reaction was to make a critical survey and evaluation of the movement, and then design a number of experimental and evaluative programs in various subjects.

Thus, from the early 1960s, evaluation came to be built into the normal approach by the ACER to new activities. Evaluation was seen as a characteristic of the ACER's work, and its staff were regarded as specialists in evaluation. Evaluation of a completed activity such as a student's achievement or a set of learning materials was valuable and essential but not creative. Formative evaluation that took place during the course of an activity, a situation in which the evaluator was able both to judge and advise, was a promisingly constructive tool. As the ACER moved further into the production of educational materials in the 1960s and early 1970s, formative evaluation became more popular. It raised again the perennial problem which appeared in various forms as service versus innovation, development versus fundamental research, and explanation versus invention. Service, development, explanation were activities supportive of an already established system, activity, or set of ideas. They might elucidate them through research, make their realization easier in practice, or translate them into more effective and attractive forms of action. They did not radically change them. They were the bread-and-butter processes of service institutions. They might make education more 'alive and alert', but would not give it a new direction. The ACER throughout its history was, like its first two Directors, usually a cautious institution. It tended to play safe, to supply the tests and services of the kind that were wanted by educational authorities, and to survey and evaluate existing situations in education rather than move to create new ones. It was on the side of progress, but the advance was not likely to be a bold one. The NEF Conference of 1937 and the CSSE program of the 1960s were its two aberrant high spots. On those two occasions it broke the mould, and for a short time excited the educational imagination of its clients. They did not represent, however, its usual or its main contributions to Australian education.

The ACER was an institution between two worlds, the universities and the state education departments. The Council hoped its staff would be of the intellectual calibre of the staff of a leading university. From the beginning it paid its Director a professorial salary and subsequently added another 15 per cent to it. In 1950 and 1955 it moved to equate the positions and salaries of the rest of the staff to those of the University of Melbourne. The practice has continued to the present time. The ACER, however, had service obligations that university staff did not necessarily accept, and its staff members were seldom able to undertake research unconnected with educational service, or to research further into problems thrown up by the methods or content of their normal research. When they did so, it was done mainly in pursuit of a higher degree at a university for which they had been granted study leave. In that way, Spearritt's fundamental work on the analysis of abilities in listening comprehension and Clark's extension of it to reading and listening abilities were done; and Keeves's pioneering effort on the relationship of environment and achievement, published by the ACER, was undertaken after he had resigned to study at the Australian National University. A number of the staff maintained contact with various universities in Victoria by becoming part-time lecturers in graduate courses on aspects of educational research.

On the other hand, having something of a university's remoteness from immediate involvement in schools while lacking its freedom of choice, the ACER performed many tasks similar in kind to, though frequently wider in scope than, those of research branches in state education departments. It was related closely to the state departments by financial necessity and also by the composition of its executive. Two of the most prominent members of the ACER's executive in the 1960s and 1970s were A.W. Webster and W.Wood. Webster joined the Council in 1958 and except for two years has remained a member continuously to the present time; his membership of the executive began in 1968. Wood was a Council member from 1954 to 1977, and a member of the executive from 1964 to 1977. For much of the period of their membership of the executive, both were in charge of the research branches respectively in New South Wales and Queensland. Webster was a pleasant, thorough, and persistent individual; Wood, highly competent and determined. Both were committed to the ACER's welfare which they identified with serviceableness and practicality. They both were determined to keep the Director's feet on the ground, and try to ensure that the program was geared to the current needs of Australian schools. It was not always easy to live on the edge of these two worlds.

The situation generated three problems. They were solvable problems, but the tensions to which they gave rise made life sometimes rather uncomfortable for the Director, executive, and staff, and led to near-breakdowns in the organization. The first problem was that of trying, along an uncertain continuum from maintenance to innovation, to achieve a balance between maintaining earlier work such as renorming long-established tests, continuing developmental work (for example in curriculum materials), concentrating more effort on evaluation, undertaking fresh survey work, and trying to open up promising new lines of research. The institution needed a very high morale and consciously accepted sense of purpose to achieve a satisfying balance and success in all these areas.

The second problem was an administrative one. It was not as feasible, in 1970 as in 1950, for the Director to have command of all the ACER's activities, and to display the public presence that was demanded of him. Cunningham, during his last eight years, had surrendered the internal direction of affairs to his deputy and had concentrated largely on the ACER's public image. Radford found it difficult to devolve responsibility. The wider program called for a wider range of advice through advisory committees and more involvement from the staff and executive in planning. Reorganization accordingly took place, but it was not easy to achieve without a thorough re-examination of purposes. A beginning of such a re-examination was made when the third Director was appointed.

The third problem was associated with the question of the ACER's purposes. Did it, as an educational research agency, express consciously or unconsciously some theory of education? It was quite possible for the ACER to operate as an organization unaware of its educational purposes and effects. But it was hardly possible for it to be an institution leading the way in some educational direction, if it was itself educationally directionless. If its staff were not aware of its unexpressed purpose, or were unable to justify its activities by reference to some beliefs held in common about education, it would be hard to see the ACER as an institution with a recognizable identity. It might be identified with its leading personalities but, if the staff and executive were not very much of the same mind with them, the institution would be educationally shapeless. One of the first tasks undertaken by the new Director with his staff and advisory committees from 1977 to 1979 was that of working out fundamental lines of policy and redesigning appropriate research and service areas for the ACER. It was a substantial move to build greater coherence, and to develop a new shape and a new set of relationships in the life and work of the 50-year-old institution.

APPENDIXES

APPENDIX I

MEMBERS OF ACER COUNCIL AND STAFF

Presidents

F. Tate	1930–39
H.T. Lovell	1939–48
J.D.G. Medley	1948–59
C.R. McRae	1959–60
A.H. Ramsay	1960–67
T.L. Robertson	1967–69
P.H. Partridge	1969–73
S.A. Rayner	1973–79
P.H. Karmel	1979–

Vice-Presidents

H.T. Lovell	1930–39
A. Mackie	1939–40
J.D.G. Medley	1940–48
H.T. Lovell	1948–51
C.R. McRae	1951–59
F.J. Schonell	1959–68
W. Wood	1964–77
J.A.L. Matheson	1968–69
A.H. Webster	1971–77
R. Selby Smith	1977–79
D. Spearritt	1979–

Council 1930–80

Adam, R.S.
Alford, N.D.
Anderson, A.P.
Angus, M.J.
Barton, J.H.
Bassett, G.W.
Behrens, N.L.
Beltz, C.L.
Berndt, K.L.
Bradshaw, G.D.
Brooks, F.H. (acting)
Browne, G.S.
Cameron, R.G.
Clark, M.L. (acting)
Coggins, R.S.
Cole, P.R.
Cowan, R.W.T.
Debus, R.L.

Dodson, H.L.
Edwards, L.D.
Ellwood, W.H.
Fenner, C.
Fletcher, C.E.
Fowler, H.L. (acting)
Gilchrist, R.J.
Glastonbury, J.O.G.
Gough, A.V.
Hughes, P.W. (acting)
Johnson, J.A.
Keats, Daphne M.
Keats, J.A.
Liddelow, J.J.
McCulloch, R.W.
McDonell, A.
McGaw, B.
McKellar, S.J. (acting)
McKinty, W.M.
McRae, J.
Meldrum, H.J.
Morris, J.
Morrison, D.M.
Mossenson, D.H.
Neal, W.D.
Parker, H.T.
Penny, H.H.
Peter, R.G.
Phillips, G.E.
Piddington, L.S.
Piper, K.J.
Priest, T.A. (acting)
Ramsey, G.A.
Renehan, W.T.
Roberts, T.T.
Robinson, J.A.
Rooney, C.
Schultz, A.J.
Shears, L.W.
Stanhope, R.W.
Sten, T.
Traylen, N.G.
Turner, I.S.
Verco, D.J.A.
Walker, J.H.N. (acting)
Watson, W.C.
Webber, B.J.
Wheeler, D.K. (acting)
Whitehead, G.J.
Whitford, R.L.
Winder, R.B.
Woods, S.W.
Wrigley, L.J.
Wyeth, E.R.
Wyndham, H.S.

Directors

K.S. Cunningham	1930–54
W.C. Radford	1955–76
J.P. Keeves	1977–

Assistant and Associate Directors

W.C. Radford	1946–54
S.S. Dunn	1959–66
M.L. Turner	1966–69
M.L. Clark	1966–75
J.P. Keeves	1972–76
J.F. Izard	1978–
T.H. Williams	1978–

Staff 1930–80

Abbott, J.
Adams, G.
Ahearn, S.
Ainley, J.G.
Atkin, M.L.
Alford, N.D.
Alfred, I.
Allanson, P.L.
Allen, G.
Allen, N.
Allen, Y.
Allison, R.E.
Ambrose, R.
Anderson, B.
Anderson, M.
Anchen, N.
Arney, D.J.
Arnold, P.L.
Aston, R.
Ayres, M.
Baines, L.

Baird, A.W.
Baker, G.
Bald, J.
Baldwin, J.
Balloch, M.
Barclay, B.
Barlow, J.
Barnard, C.
Barnes, J.A.
Barraclough, R.
Batten, M.
Bauchmann, L.
Bayley, C.
Beaumont, M.
Becker, R.
Bell, R.C.
Bellamy, D.
Bennett, D.M.
Bennett, L.A.
Besemeres, H.
Blazely, L.D.
Boreham, J.
Botham, L.
Bourke, S.F.
Bourne, M.
Boyce, W.E.
Boyes, B.J.
Bradley, J.
Bradshaw, D.M.
Bradshaw, G.D.
Braid, R.
Branson, C.W.
Brazenor, P.
Bretherton, C.
Brougham, J.
Brown, C.A.
Brown, P.
Browning, J.
Brownless, V.T.
Bruce, D.W.
Bryce, J.
Buckman, N.L.
Bullivant, B.M.
Burdan, P.P.E.
Burley, G.M.
Burns, P
Burrage, G.M.
Bush, J.
Cable, D.J.
Calcraft, C.
Calcutt, C.
Campbell, M.A.
Campbell, R.
Candler, W.J.
Car, L.
Carrick, M.P.
Cassidy, J.
Castelle, S.
Caulfield, S.
Chris, B.
Christeson, B.
Chynoweth, A.
Cigler, F.B.
Clark, J.
Clark, M.L.
Clarke, J.
Clarke, M.E.
Clayton, F.
Clutterbuck, R.
Coleman, G.A.
Coleman, T.
Commons, C.
Connell, J.
Considine, T.M.A.
Cook, C.J.
Cook, D.
Cook, D.M.
Cooke, A.D.
Cooper, E.D.
Corfe, M.
Corless, M.
Cornish, G.B.
Couper, D.
Cowan, O.
Crabbe, C.
Craig, R.
Crilley, T.J.
Crisp, B.
Crisp, M.
Cropley, M.C.
Crosher, J.
Cunningham, K.S.
Cunningham, L.E.
Currie, P.M.
Dabke, R.I.
Dale, E.C.
Dale, L.G.
Darmody, J.
Davey, R.W.
Davies, G.
Davis, A.W.
Davy, C.
De Lemos, M.M.
Di Leo, P.
Dineen, L.K.
Dirkis, P.C.
Dobell, G.
Dods, R.
Dodson, H.L.
Domini, C.
Dowsett, C.
Drummond, J.M.
Duff, T.S.
Duncan, J.I.
Dunn, S.S.
Dunstan, M.
Dymond, S.
Earl, L.M.
Easterbrook, S.
Eiby, I.
Ellemor, G.
Elliot, L.
Emmins, J.
Engellenner, P.
Eppinger, J.
Farish, S.
Farquhar, R.
Findlay, M.A.
Finger, H.
Fitzgerald, R.T
Fitzpatrick, M.
Flinn, B.
Fordham, A.M.
Fordham, L.
Fox, D.W.
Fox, J.
Foyster, J.M.
Fraser, I.C.

Fulton, B.
Gadd, I.
Gaffney, J.
Gale, P.L.
Gale, S.A.
Gay, S.P.
Geddes, M.
George, M.
Gibson, R.
Gigante, C.
Gilbert, R.
Gilder, J.
Girling-Butcher, S.
Gloster, M.V.
Godfrey, R.
Goodger, D.
Goodluck, K.
Gorman, J.A.
Gorwell, M.A.
Gosling, G.W.H.
Graafmans, C.
Graco, S.
Graham, M.
Grant, A.
Gredden, G.
Green, M.
Gregory, J.
Griffiths, C.A.
Grose, B.
Gundry, N.J.
Gunn, J.P.
Hall, G.
Hambly, J.
Hamerston, M.
Hamilton, R.
Hammond, S.B.
Handley, B.F.
Hanna, R.J.
Harding, J.
Harold, L.M.
Harrigan, N.
Hart, E.K.
Hartung, L.D.C.
Harvey, F.A.
Hawkesford, G.J.
Hawkins, B.
Hay, B.E.
Haynes, S.
Headlam, F.
Heath, G.K.
Hegarty, R.
Heggen, M.
Henderson, L.
Hengeveld, M.
Henry, V.
Herschell, R.
Hoare, E.
Hobbs, G.
Hodgkinson, J.
Hohne, H.H.
Holbrook, A.
Holmes, J.
Holzer, F.
Hopkins, H.W.
Horne, B.C.
Horne, M.
Hort, Y.M.
Houghton, S.
Howard, H.O.
Howard, K.
Hubbert, G.D.
Hudson, M.J.
Hughes, R.
Hulme, D.E.
Hylands, A.
Ilsley, J.M.
Izard, J.F.
Jagger, G.M.
Jakobsen, N.
James, M.E.
Jamieson, D.B.
Jeffrey, P.
Jenkinson, J.C.
Jennings, M.
Johnson, B.R.
Johnson, G.
Johnson, L.R.
Johnston, D.M.
Jones, E.
Jones, P.
Jones, S.E.
Jones, W.B.
Jupp, R.R.
Jupp, R.W.
Kawenoka, M.
Keats, J.A.
Kee, K.
Keep, A.G.
Keeves, J.P.
Kenna, J.C.
Kent, L.
Kilkenny, I.M.
Kimpton, J.
King, J.V.
Kings, C.B.
Kline, L.
Knee, W.J.
Koch, D.
Kocotsi, J.
Kosky, M.
Kreuzer, M.
Krizos, E.
Kumm, A.
Lacey, A.M.
Lade, D.J.
Lademann, O.C.
Laisman, H.
Lamb, A.E.
Lancashire, B.
Lane, M.E.
Lannan, C.
Lannan, D.
Lansdell, P.
Larkin, S.R.
Larsen, P.M.
Lee, M.
Lees, L.
Leith, S.
Leman, M.
Lewis, M.B.
Lewis, R.
Liddell, D.A.
Lim, M.
Little, J.M.
Lloyd, G.
Lloyd, V.
Lloyd-Smith, J.
Locke, M.P.

Locock, G.
Logan, I.M.
Lokan, C.
Lokan, J.J.
Longman, M.L.
Lord, J.A.
Lowe, S.C.
Loye, J.
Lublin, J.
Lumbers, J.
Lynch, J.
Lyons, I.
Maas, F.
Mackay, L.D.
Mackay, L.E.
MacKinnon, M.
MacMillan, M.B.
Maddock, M.A.
Maguire, D.
Maling, J.M.
Manley, G.
Martin, P.
Mason, J.
Matthews, J.K.
Maunder, J.
Maxwell, M.
McBean, N.
McComb, S.
McDonald, C.K.
McDonald, P.
McDonnell, R.M.
McDowell, M.
McDowell, R.
McFerran, B.
McGeorge, H.
McGregor, E.
McIlroy, E.
McIntyre, G.A.
McKenzie, P.A.
McKey, G.
McLachlan, L.
McLean, P.
McMahon, P.M.
McPherson, F.E.
McShane, C.
Meacham, M.
Meadows, J.C.
Medlicott, P.
Mennell, E.
Meredith, S.G.
Metcalf, E.
Miller, E.
Miller, I.
Mills, J.M.
Milne, S.
Monagle, T.P.
Morey, E.A.
Morgan, G.
Moritz, K.W.
Morris, E.M.
Morris, V.L.
Morrow, G.
Mortlock, I.
Moyle, M.
Muir, R.M.
Nabbs, P.
Nankervis, E.
Newby, J.H.
Nichols, P.
Nicol, L.
Nixon, H.
Nixon, M.C.
Noble, C.R.
Noble, T.E.
O'Connor, M.
Oddie, N.M.
O'Dea, L.M.
O'Donnell, M.E.E.C.
O'Neill, S.
O'Shea, D.M.
O'Shea, J.
Oddie, N.M.
Oders, R.A.
Oeser, M.D.
Olsson, M.
Ormesher, D.
Orr, E.
Osborn, M.
Owen, J.M.
Palmer, D.
Palmer, M.
Parkin, B.
Parry, D.
Pathmanatham, S.
Pawsey, M.
Peacock, R.W.M.
Peel, M.
Pellegrini, P.G.
Pendrey, S.
Pernat, M.
Perry, A.
Pettit, D.W.
Phillips, L.
Phillips, S.J.
Pierce, R.
Piper, K.J.
Powell, S.G.
Pratt, J.J.
Price, D.H.
Price, W.
Priest, R.A.
Priestley, R.
Pringle, A.G.
Prior, J.E.
Psiliakas, L.
Pullen, D.
Quick, L.
Rachjaibun, P.
Radford, W.C.
Raiola, B.
Ramsey, G.A.
Ramus, J.
Randall, B.
Ray, M.
Rayner, S.A.
Read, A.
Rechter, B.
Rees, K.
Renehan, W.T.
Reside, S.M.
Rignold, H.M.
Roberts, A.C.
Roberts, B.D.
Robertson, J.
Robin, P.I.
Robinson, M.C.
Robinson, M.E.
Rosh, N.E.

Rosier, M.J.
Ross, B.W.
Ross, K.N.
Ross, S.J.
Rowe, H.A.H.
Rowe, J.L.
Rowell, F.
Rowlands, E.
Rowlands, R.G.
Rumball, F.M.
Russell, J.L.
Ryan, C.
Ryan, M.J.
Ryvitch, L.
Said, G.
Sands, J.
Saunders, K.A.
Schoelde, P.
Schoenheimer, H.P.
Schrader, M.
Schrom, L.K.
Schultz, E.V.
Scott, E.
Searle, M.G.
Segall, P.F.
Segar, B.
Selway, J.
Sewell, D.
Shackleton, C.
Shannon, A.G.
Sharp, M.A.
Shaw, J.
Shears, M.
Shee, S.
Sheldrake, A.M.
Shepherdly, S.
Sheridan, M.
Shield, J.
Sidell, E.S.
Siggs, T.M.
Sigmont, C.
Simpson, A.J.
Singh, A.L.
Sjoberg, S.
Slee, C.
Sloss, T.
Smith, G.A.
Smith, H.
Smith, J.D.
Smith, L.
Smith, R.F.
Smith, V.M.
Spearritt, D.
Speed, W.G.
Stanyon, J.
Staurenghi, P.M.
Stephen, D.
Stephens, E.R.
Stevens, F.
Stevenson, A.
Stewart, E.
Stow, H.
Sturman, A.
Suira, J.
Summers, M.G.
Sutherland, R.V.
Swale, P.
Syer, F.J.D.
Taft, E.
Taylor, J.
Taylor, M.
Taylor, M.A.
Taylor, M.R.
Taylor, N.J.
Taylor, P.
Taylor, S.
Tebble, H.
Thompson, J.
Thomson, D.
Thomson, J.
Thomson, P.P.
Threlkeld, G.
Tiddy, C.R.
Tomlinson, D.
Toop, W.J.
Toy, I.
Tregallis, K.E.
Tucker, R.M.
Tulloh, A.
Turnbull, J.D.
Turner, M.L.
Turner, T.J.
Tyler, J.
Tyson, J.
van Hulssen, E.A.
Verco, D.J.A.
Vickery, P.
Vidler, E.M.
Villiers, G.
Vine, E.W.
Waddell, L.
Waddington, D.M.
Walker, J.
Walker, J.H.N.
Walker, K.
Ward, A.G.
Warnecke, D.B.
Warry, M.E.E.C.
Warry, R.
Washington, J.
Watson, E.
Watson, S.
Watts, H.
Webb, M.D.
Webber, J.
Wedd, H.
Wells, D.L.
Welsby, C.
Westcott, J.
Westrup, E.G.
White, J.D.
White, J.E.
Whitehead, G.J.
Whitford, T.M.
Whithear, D.
Wilkes, R.E.
Wilkie, E.
Wilkins, A.W.
Wilkinson, M.B.
Williams, G.
Williams, J.
Williams, L.
Williams, M.
Williams, T.H.
Williams, W.
Williams, W.H.
Williamson, H.J.
Wills, V.

Wilmot, G.
Wilmshurst, J.
Wilson, J.
Wilson, M.
Wilson, M.
Wilson, N.
Wilson, P.E.
Wilson, T.
Windsor, P.
Wines, R.
Wirth, M.
Wise, B.
Wiseman, I.M.
Withers, G.P.
Wittingham, D.E.
Wood, W.
Woolward, E.H.
Wright, A.
Wright, J.
Wuillemin, A.
Young, M.
Zachariah, V.
Zeidler, J.

APPENDIX II

ACER RESEARCH AND DEVELOPMENT ACTIVITIES: A SELECT LIST

Curriculum; Teaching Methods

The primary school curriculum in Australia. 1931–32.

Preparation and standardization of spelling lists for Australian conditions. 1934–36.

Survey of state curricula and examinations. 1941–51.

The spoken and written vocabulary of children: Carlton case-study. 1949–54.

Classroom social groupings, child development and children's attitudes: Carlton case-study. 1950–54.

The interpretation of words: a survey of student attitudes. 1956–57.

Survey of Australian research on reading. 1960.

Evaluation of programmed learning. 1962–66.

Evaluation of structural aids in mathematics. 1962–63.

New approaches to mathematics in the primary school. 1962–64.

Assessment of suitability of Science Research Associates elementary reading materials for Australian use. 1963–64.

Agricultural education in Australia. 1964–66.

Individual mathematics programme. 1964–71.

Mathematics in the primary school: a manual for teachers. 1964–67.

Music education in primary and secondary schools. 1964–67.

Survey of materials available for the teaching of spelling. 1965.

Junior Secondary Science Project. 1966–70.

Social sciences in secondary schools: a survey. 1966–67.

Study skills materials. 1966–70.

An analysis of writing produced in response to aural stimuli (an experimental broadcast). 1968–69.

Criteria for writing ability: a pilot study. 1968–69.

Objective tests and mathematical learning. 1968–69.

Social science curriculum project; development of materials concerning social change. 1968–77.

A study of the use of closed circuit television in schools (the Malvern project). 1969–71.

Survey of recent studies in oral and written communication. 1969–70.

Telecommunications in education: the potential use of telecommunication facilities by educators. 1970–71.

Definition and measurement of reading and listening comprehension. 1972–74.

From testing to teaching in the humanities: resources for critical thinking and judgment at the upper secondary school level. 1972.

Revision of Junior Secondary Science Project materials. 1972–74.

Social sciences evaluation project. 1973–75.

Communications media: classroom materials. 1975–76.

Educating for leisure. 1974–79.

Essential learning about society. 1975–77.

Impact of the Australian Science Education Project materials on Australian schools. 1975–78.

Music evaluation project. 1975–77.

Science facilities evaluation project. 1975–78.

Curriculum materials evaluation. 1976– .

The teaching and appraisal of reading. 1976–79.

Social learning and the impact of innovation. 1977–79.

The teaching of number work in primary schools. 1977–78.

International Association for the Evaluation of Educational Achievement teaching for learning study. 1979– .

Educational Policy and Administration; Educational Philosophy

Educational statistics of state education departments: an evaluation. 1937–40.

Training for educational administrators: a survey of practices. 1960–62.

The development of school courses in Australia: a review. 1968–69.

Finance for education in Australia. 1971–75.

Education policies of the Australian government and of the Liberal Party. 1975–76.

Federal – state relations in education. 1975 – 76.

The purposes of schooling in Australia. 1975 – 76.

Educational Systems and Institutions

Australian correspondence education. 1930 – 31.

Review of education in Australia 1938. 1938 – 39.

Review of education in Australia 1939. 1939 – 40.

Prediction of success of students at the University of Melbourne. 1942 – 55.

Review of education in Australia 1940 – 1948. 1946 – 48.

Survey of correspondence education in Australia. 1946 – 48.

Non-government schools in Australia: a survey. 1951 – 53.

Review of education in Australia 1946 – 1954. 1953 – 55.

Science requirements of independent schools: a survey. 1957 – 58.

Prediction of success of law school students. 1958 – 64.

Review of education 1954 – 1962. 1960 – 63.

Current trends in vocational and technical education in Australia. 1964.

Review of secondary education in Australia. 1964 – 69.

Learning and teaching in the colleges of advanced education. 1967 – 70.

Review of research in education in Australia. 1972 – 73.

A study of a community school (Swinburne). 1972 – 75.

Community and school project. 1973 – 75.

Review of continuing education. 1973 – 74.

Parish primary school survey. 1976 – 77.

A history of the ACER. 1977 – .

TAFE pre-vocational education evaluation. 1978 – 79.

TAFE staff development evaluation study. 1978 – 79.

Pre-school Education; Child Psychology

Age of admission to primary schools. 1955 – 57.

Formation of concepts in young school children. 1964 – 67.

The learning of symmetry principles and their transfer to tests of spatial ability. 1966 – 67.

Performance of children in mathematics: research on conceptual development. 1967 – 68.

Some recent developments in pre-school education. 1970–71.

The language and conceptual development of pre-school children. 1971–78.

Pre-school attendance in Victoria. 1972–73.

Home start materials. 1973–75.

Validation and description of children's behaviour. 1973–74.

Studies of children with perceptual motor problems. 1979–80.

Social and Economic Foundations of Education

Destinations of pupils leaving Victorian elementary schools. 1930–32.

Educational aspects of youth-adult employment. 1939–40.

Adjustment of youth: an international survey. 1947–50.

Vocabulary of the Australian child. 1950–60.

English expression of 10-year-olds: a socio-economic analysis. 1953–54.

The educational needs of Ferntree Gully Shire. 1954–56.

Characteristics of an ideal school class: a survey of citizens' attitudes. 1956–58.

The adolescent in school and society. 1957–61.

Choice of schools and of courses: a survey of parental and student attitudes. 1958–63.

Destinations of 1957 matriculants: a survey. 1958–61.

Commonwealth Secondary Scholarship Examination winners: effects on families' educational plans. 1968–70.

Cognitive abilities of Aboriginal children in primary schools. 1969–71.

The role of the primary school in the community: a survey of attitudes. 1970–72.

School leavers in Australia: a survey. 1970–74.

Social and political influences in relation to change and reform in education. 1970–73.

Educational achievement of migrant children. 1971–75.

The home environment and school study. 1973–75.

Poverty, education and adolescents: an empirical study of educational disadvantage among adolescents. 1974–75.

Social indicators of educational achievement. 1976– .

The education of Aboriginal children in Victoria. 1971–79.

Education Program for Unemployed Youth: an evaluation. 1978–79.

Studies of unemployed youth. 1978– .

Survey of school leavers. 1978– .

The employment of graduates and diplomates of colleges of advanced education. 1979–80.

Student Assessment

The reliability of marking handwriting from scales. 1949–51.

Statistical methodology. 1949–53.

The use of objective tests in matriculation. 1951–54.

Evaluation of the Western Australian Leaving English examination. 1956–59.

Stability of answer patterns in multiple-choice tests. 1956–57.

Aural comprehension in the primary school. 1957–60.

General ability of upper secondary school students in Victoria: a survey. 1962–64.

International Association for the Evaluation of Educational Achievement mathematics project. 1963–67.

Reliability of essay marking. 1964–66.

Inter-item correlations and phi coefficients. 1965–66.

Commonwealth Secondary Scholarship Examination: validity and reliability studies. 1972–74.

Performance of Commonwealth Secondary Scholarship Examination winners: follow-up studies. 1966–71.

Examining for university entrance in Australia: a survey of current practices. 1968.

International Association for the Evaluation of Educational Achievement science project: national analyses. 1968–73.

A statistical analysis of the generalizability of written expression. 1968–69.

Higher School Certificate English Expression examination: an evaluation. 1969–71.

Studies of the writing ability of secondary school students: a validity study of the Commonwealth Secondary Scholarship Examination. 1969–71.

Effects of coaching on Commonwealth Secondary Scholarship Examination results. 1971–73.

International Association for the Evaluation of Educational Achievement science studies: population 2 follow-up. 1971–78.

International Association for the Evaluation of Educational Achievement science studies: population 4 follow-up. 1971–78.

Primary school language project (Grade 3). 1971–73.

Structure of reading abilities. 1971–72.

Study of marking for the written expression paper of the Commonwealth Secondary Scholarship Examination. 1971–73.

Written expression in the primary school. 1971.

A study of sampling errors. 1972–77.

Language of primary school children. 1973–78.

Assessment for Australian Capital Territory secondary schools. 1974.

Educational performance and specific learning difficulties (Australian studies in school performance). 1975–77.

Response to the reading of fiction. 1975–77.

Second International Association for the Evaluation of Educational Achievement mathematics project. 1976–80.

Studies of criterion-referenced measurement. 1976– .

Assessment of oracy in Australian schools. 1977–79.

Studies in sample design. 1978– .

Australian Studies in Student Performance. 1979– .

Teachers; Teacher Education

Average length of teachers' professional lives. 1930–32.

National survey of Australian teachers. 1937–41.

Supply and recruitment of Australian teachers. 1943–45.

Inspection practices in state primary schools. 1955–60.

Attitudes of students in teachers colleges. 1958–59.

Teacher promotion: a review of the literature. 1962–63.

Teachers for Commonwealth schools. 1971–72.

Survey of educational counselling in Australia. 1973–74.

Victorian In-service Education Evaluation Project. 1974–76.

Schools Commission Development Program: an evaluation. 1976–78.

Staffing and resources in Australian schools. 1979– .

Testing

Achievement Tests

Preparation and standardization of tests in arithmetic. 1930–33.

Oral reading tests. 1931–34.

Preparation and standardization of group tests in silent reading. 1931–35.

Standardization of Stanhope chemistry test for secondary schools. 1934–36.

ACER Reading Readiness Test. 1946–50.

English and arithmetic tests, for SA Department of Education. 1947–48.

Development of basic skills battery (primary level) for NSW Department of Education. 1959–63.

Development of lower grades achievement tests. 1960–62.

NSW basic skills testing program. 1959–67.

Victorian primary schools testing program. 1963–70.

Junior secondary school English tests. 1966–69.

Primary school reading and listening tests. 1967–71.

Tests of Reasoning in Mathematics (grades 7–10). 1967–1973.

Primary school mathematics tests. 1969–73.

New South Wales Primary Evaluation Program. 1971–76.

Progressive achievement tests in reading (Australian edition). 1971–72.

Primary reading survey tests. 1971–73.

Australian Test for Advanced Music Studies (ATAMS). 1972–75.

Australian item bank program. 1973–77.

ACER Class Achievement Test in Mathematics (CATIM). 1974–76.

Paragraph reading test. 1974–77.

School achievement tests. 1978– .

Aptitude and Personality Tests

Development of psychological tests for personnel selection in the national services. 1939–45.

Mechanical aptitude tests, for trainee munitions workers. 1940–42.

Testing of national service trainees 1951–54.

Development of guidance battery for NSW Department of Education. 1959–62.

Australian Mutual Provident Society Salesman Aptitude Test. 1967–72.

California Personality Inventory, Australian edition. 1969–70.

Career education and guidance instruments and report on trends. 1975–76.

Diagnostic Tests

Victorian matriculation physics tests. 1966–67.

Biology diagnostic and achievement tests. 1967–77.

Matriculation chemistry diagnostic tests. 1967–69.

Primary school mathematics tests (AM series). 1970–79.

Leaving chemistry diagnostic tests. 1972–74.

Secondary mathematics diagnostic tests. 1972–77.

Migrant education (testing) project. 1973–76.

Diagnostic and readiness tests for early primary school. 1974– .

Physics unit tests. 1975–78.

Chemistry unit tests. 1979– .

General Ability Tests

Preparation and standardization of non-verbal test of general ability for Australian conditions. 1937–36.

Preparation of local norms for Otis self administering test of mental ability, and non-verbal test of general ability. 1934–36.

Intelligence tests (grade 6) for NSW Department of Education. 1937–48.

Preparation of intelligence test (guide to further education after 12 years) for NSW Department of Education. 1938–39.

Construction of intelligence tests for NSW Public Service Board. 1940–54.

Examination of University of Melbourne students for admission under adult matriculation scheme. 1940–55.

Personnel selection tests for Commonwealth government departments. 1940–44.

ACER Mechanical Comprehension Test. 1942–43.

Testing of applicants for entry to Melbourne Technical College. 1942–45.

Tests for the Vocational Guidance Bureau, Sydney. 1944–45.

General ability tests, prepared for Victorian Government scholarship examinations. 1945–63.

ACER intermediate D test. 1946–51.

ACER Junior A test (grade 4), for NSW Department of Education. 1946–47.

ACER Junior B (verbal) general ability tests. 1947–51.

ACER Jenkins non-verbal test: modification and standardization. 1948–53.

Raven's progressive matrices (1938) and general test M: standardization. 1948–49.

Revision of Otis intermediate intelligence tests. 1949–53.

ACER Mechanical Reasoning Test (13–14 years). 1950–51.

Testing of teachers college entrants. 1955–59.

Development of general ability test for children aged 7 to 9. 1959–61.

Revision of lower grades general ability tests. 1959–61.

Development of selection tests for Commonwealth Public Service Board. 1960–1965.

Co-operative Scholarship Testing Program. 1962– .

Development of general ability tests for the NSW Department of Labour and National Service. 1962–66.

Commonwealth Secondary Scholarship Examination. 1964–73.

Commonwealth Public Service Board: advanced level general ability test. 1965–66.

NSW Department of Labour and Industry: revision of higher tests RL and RQ (tests SL and SO). 1966–67.

Australian revision of the Wechsler Intelligence Scale for Children (WISC). 1967–75.

Tertiary Education Entrance Project (TEEP). 1968–69.

Australian Scholastic Aptitude Test. 1969– .

Commonwealth Banking Corporation selection test. 1969–70.

Test of Learning Ability (TOLA). 1969–71.

Australian Scholastic Aptitude Test special testing programs. 1974– .

Australian Law Schools Entrance Test (ALSET). 1977–80.

Comparative studies of WISC-R and WISC. 1977–79.

Revision of adult and higher level group ability tests. 1977–80.

Revision of intermediate level group ability tests. 1979– .

APPENDIX III

ACER PUBLICATIONS IN SELECTED SERIES

Australian Education Review

Previously Quarterly Review of Australian Education (title changed after Volume 6 Number 4).
After Volume 7 Number 4, volume number no longer stated.

1& 2 School and neighbourhood: a case study by R.T. Fitzgerald, P.W. Musgrave and D.W. Pettit. 1974.

3 Religious studies in Australian public schools: an overview and analysis by A.W. Black. 1975.

4 Educational policy and political platform: the Australian Labor government by J.K. Matthews and R.T. Fitzgerald. 1975.

5 Finance for education in Australia: developments 1969–75 by D. Tomlinson. 1976.

6 Australian perspectives on lifelong education by C. Duke. 1976.

7 Australia and international education: some critical issues by J. Cleverley and P. Jones. 1976.

8 The Liberal Party: politics and education policy by D. Tomlinson. 1977.

9 Rights in education: the Australian conundrum by I.K.F. Birch. 1977.

10 The development of an independent education authority – retrospect and prospect in the Australian Capital Territory edited by P. Hughes and W. Mulford. 1978.

11 Education for literacy and numeracy in Australian schools by J.P. Keeves, J.K. Matthews, and S.F. Bourke. 1978.

12 Bearings in moral education: a critical review of recent work by B. Crittenden. 1978.

13 From school to work: a review of major research in Australia by A. Sturman. 1979.

Educational Research Series

The Educational Research Series began publication in 1930, at the outset of ACER's publication program, and it is still continuing. Numbers 1 – 66 were published in association with Melbourne University Press. From Number 61 (1943) it has been called Research Series.

1 Individual education: being an account of an experiment in operation at the Thebarton High School, SA by C. Fenner and A.G. Paull. 1930.

2 Some aspects of education in the USA by K.S. Cunningham and G.E. Phillips. 1930.

3 Primary education by correspondence, being an account of the methods and achievements of the Australian correspondence schools in instructing children living in isolated areas by K.S. Cunningham. 1931.

4 Training for business: being a report of a committee of the Melbourne Chamber of Commerce edited by D.B. Copland. 1931.

5 Induction or deduction? An experimental investigation in the psychology of teaching by H.L. Fowler. 1931.

6 The young child: a series of five lectures on child management given under the auspices of the Victorian Council for Mental Hygiene, November 1930 by K.S. Cunningham and others. 1931.

7 The teaching of chemistry in the secondary schools of New South Wales, with special reference to the conditions existing in the United States of America by R.W. Stanhope. 1932.

8 The case for curriculum revision: being a report submitted to the Director of Education, Victoria as the result of observations in Great Britain and America by G.S. Browne. 1932.

9 Class grouping in the primary school: a study of the nature and validity of current methods of class grouping in Sydney primary schools by H.S. Wyndham. 1932.

10 Occupations in Victoria: an investigation into the normal annual absorptive capacity of occupations in Victoria by G.R. Giles and J.R. Lyall. 1932.

11 An advanced test of general intelligence by N.M. Hales. 1932.

12 The growing child, a series of five lectures on child management by M. Lush and others. 1932.

13 The psychology of literary appreciation: a study in psychology and education by D.C. Griffiths. 1932.

14 Australian Educational Studies (first series). 1932. Includes: Standardised tests of teaching ability, by P.R. Cole and R.K. Whately; The length of the teacher's professional life by K.S. Cunningham; Problem children in Melbourne schools edited by K.S. Cunningham; The story of an Australian nursery school by M.V. Gutteridge; An experiment in the teaching of reading comprehension by G. Limb and H.T. Parker; Crippled children in Tasmania by H.T. Parker.

15 Defects of speech in school children: results of an investigation made in the Tasmanian state schools by H.T. Parker. 1932.

16 The primary school curriculum in Australia edited by P.R. Cole. 1932.

17 Intelligence and scholastic attainment: a study of the educational proficiency of subnormal children by H.T. Parker. 1932.

18 Comments on education in the United States of America and Victoria, Australia by J.G. Cannon. 1933.

19 English in Australia: taste and training in a modern community by E.G. Biaggini. 1933.

20 An Australian looks at American schools by C.R. McRae. 1933.

21 The standardization of an Australian arithmetic test by K.S. Cunningham and W.T. Price. 1934.

22 Three studies in the comparative intelligence of English, American and Australian children. 1934. Includes: A comparison of the intelligence of Victorian and American school children by R.D. Collmann; The standardization of Professor Spearman's Measure of Intelligence by A.J. Marshall; A standardization for Perth, WA of the Sydney Teachers College Group Scale by R. Thomas.

23 Report on the teaching of history and civics in Victorian secondary schools, by a History Sub-Committee of the Victorian Institute of Educational Research edited by A. Hoy. 1934.

24 Educational observations and reflections, being some comments on present day education in United States, England, and Australia by K.S. Cunningham. 1934.

25 An investigation into secondary school mathematics: an analysis of the results of Mathematics I paper, Intermediate Certificate Examination, New South Wales, 1931 by H.J. Meldrum. 1934.

26 The education of the retarded child by P.M. Bachelard. 1934.

27 The development of intelligence in subnormal children by H.T. Parker. 1934.

28 The effect on retention of different methods of revision by M. Bridge. 1934.

29 Some character traits of delinquent and normal children in terms of perseveration factor by G. Clarke. 1934.

30 The value of the prevention of error as a teaching device by D.K. Wheeler. 1934.

31 Ability grouping: recent developments in methods of class-grouping in the elementary schools of the United States by H.S. Wyndham. 1934.

32 The education of the adolescent in Australia: report of a committee. Edited by P.R. Cooper. 1935.

33 Education in Fiji by C.W. Mann. 1935.

34 The background of American education, as an Australian sees it by H.T. Parker. 1935.

35 Three studies in the prediction of scholastic success by R.D. Collmann and C. Jorgensen. 1935.

36 Adult education in America and England by B.H. Molesworth. 1935.

37 The junior scholarship system of Victoria by J.A. Cole. 1935.

38 Secondary education in New South Wales by W.J. Elliott. 1935.

39 The standardization of an Australian reading test by G.A. McIntyre and W. Wood. 1935.

40 A history of Tasmanian education: state primary education by C. Reeves. 1935.

41 The duration of attention in young children by M.V. Gutteridge. 1935.

42 Australian schools through American eyes by J.F. Cramer. 1936.

43 Variability of examination results: a study of the public examinations in Victoria, 1922–33 by J.A. Seitz. 1936.

44 Training to reason: an investigation into the possibility of training in seeing relations in evidence by M. Hill. 1936.

45 Education for industry and citizenship by F.G. Sublet. 1936.

46 Native education and culture-contact in New Guinea: a scientific approach by W.C. Groves. 1936.

47 The classification and education of mentally handicapped children in various countries by T.B. Hill, edited by D.J.A. Verco. 1937.

48 The efficacy of broadcasts to schools and classroom lessons by M.E. Thomas. 1937.

49 The rural school in Australia edited by P.R. Cole. 1937.

50 Juvenile delinquency, with special reference to institutional treatment by M.T. Woods. 1937.

51 The establishment of a national system of education in New South Wales by C.C. Linz. 1938.

52 The relative efficiency of part and whole methods of presentation in the development of concepts by M.M. Griffiths. 1938.

53 The nature of mathematical thinking by F.W. Mitchell. 1938.

54 The standardization of intelligence tests in Australia by G.A. McIntyre. 1938.

55 Victoria's first public educationist: Rev. James Forbes by E. Sweetman. 1939.

56 The educational needs of a rural community by W.C. Radford. 1939.

57 History of the Melbourne Teachers College and its predecessors by E. Sweetman. 1939.

58 The educational activities in Victoria of the Rt Hon. H.C.E. Childers by E. Sweetman. 1940.

59 Australian Educational Studies (second series). 1940.

60 The constancy of the intelligence quotient in subnormal children by G.E. Phillips. 1940.

Occasional Papers

This series replaced a number of different series previously published by the ACER (Memoranda, Information Bulletins, and Research Bulletins).

1 Using an aural stimulus for a writing task: a report on the writing produced in response to a nationwide experimental broadcast on 1 August 1968 by J. Maling. 1969.

2 Admission to tertiary studies: an account of an experimental test battery amd a proposal for its use by B. Rechter. 1970.

3 Closed circuit television in teachers colleges by B. Hawkins. 1970.

4 Controversy in pre-school education by M.M. de Lemos. 1971.

5 Pre-school education in Australia: a review of recent developments by R.T. Fitzgerald and J.A. Crosher. 1971.

6 Recurrent education: a preliminary cost benefit analysis by K. Gannicott. 1972.

7 Pre-school enrolments in Victoria by M.M. de Lemos. 1974.

8 The primary school in the community: a survey of teacher, student, and parent attitudes by R.T. Fitzgerald. 1974.

9 Searching for uncertainty: an empirical investigation of sampling errors in educational survey research by K.N. Ross. 1976. Appendices. 1976.

10 The comparability of WISC and WISC-R by H.A.H. Rowe. 1976.

11 Aspiration and attainment: the measurement of professional self perception in student teachers by G.R. Elsworth and F. Coulter. 1977.

12 The demand for, and supply of, kindergarten teachers in Victoria 1977–84 by B. Derody and P.J. Sheehan. 1978.

13 A criterion-referenced measurement model with corrections for guessing and carelessness by G. Morgan. 1979.

14 Children's television behaviour: its antecedents and relationship to school performance: a study of the television viewing behaviour of children in grade 6 of state primary schools in the metropolitan area of Melbourne by K.J. Sharman. 1979.

15 Learning time and teaching for mastery by G. Ward. 1979.

Quarterly Review of Australian Education

The title of this series was changed to Australian Education Review beginning with Volume 7 Number 1.

School administration, and tertiary education by R.T. Fitzgerald. 1967. (Pilot edition).

Vol. 1

1 Investment in education: a study of recent trends in expenditure by R.T. Fitzgerald. 1967.
2 The new secondary school population in Australia: trends in student retention by R.T. Fitzgerald. 1967.
3 Secondary schools in the sixties: framework and organization by R.T. Fitzgerald. 1968.
4 Current trends in pre-school education by R.T. Fitzgerald and M.M. de Lemos. 1968.

Vol. 2

1 The study of society in Australian secondary schools by D.M. Bennett. 1968.
2 Examining for university entrance in Australia: current practices by B. Rechter and N.L. Wilson. 1968.
3 The development of courses for Australian schools by M.L. Turner. 1969.
4 The new Rs in the Australian primary school by R.S. Warry and R.T. Fitzgerald. 1969.

Vol.3

1 Television in the Australian classroom by B. Hawkins. 1969.
2 Australian Catholic schools into the seventies by J.E. Bourke. 1969.
3 Libraries and education by C.A. Brown. 1970.
4 Social profiles of students in four professions by D.S. Anderson and J.S. Western, with a supplement by B.C. Horne. 1970.

Vol.4

1 Aspects of advanced education by B.C. Horne. 1971.
2& 3 European migrants and their children: interaction, assimilation, education by J.J. Smolicz and R. Wiseman. 1971. 2 vols.
4 University teaching: reality and change by B. Falk and K. Lee Dow.

Vol.5

1& 2 Curriculum development in secondary school science by G.A. Ramsey. 1972. 2 vols.
3 Emerging issues in the seventies by R.T. Fitzgerald. 1972.
4 Teaching to listen by M.L. Clark and S.G. Meredith. 1972.

Vol.6

1 Whither the Australian agricultural colleges? by A.W. Black. 1973.
2 Socialization in Australian schools by P.W. Musgrave. 1973.
3 Alternative education: what choice or difference? by R.T. Fitzgerald, J.K. Matthews, and P.P. Thomson. 1974.
4 Finance for education in Australia: an analysis by P. Segall and R.T. Fitzgerald. 1974.

Research Monograph

1 Parish primary school survey, 1976 by J.P. Darmody. 1978.

2 The Australian Science Facilities Program: a study of its influence on science education in Australian schools by J.G. Ainley. 1978.

3 Aboriginal students in Victoria by M.M. de Lemos. 1979.

4 Curriculum style and social learning: an investigation into current school practices in social education by K. Piper. 1979.

5 Between school and adult life: an approach to the evaluation of pre-vocational education in TAFE by J.G. Ainley and A. Fordham. 1979.

6 School, work, and career: 17-year-olds in Australia by T. Williams, J. Clancy, M. Batten, and S. Girling-Butcher. 1980.

7 The evaluation of staff development in Technical and Further Education: a proposed methodology by A. Fordham and J. Ainley. 1980.

8 Changes in secondary school mathematics 1964–78 by M.J. Rosier. 1980.

Research Series

Previously Educational Research Series (series title changed after Number 60, 1940).

61 The training of teachers in Australia: a comparative and critical survey by I.S. Turner. 1943.

62 Children need teachers: a study of the supply and recruitment of teachers in Australia and overseas by K.S. Cunningham and E.A. Morey. 1947.

63 The Canberra system of school athletics: its approach, basis, organization and results by F. Shann. 1947.

64 Correspondence education in Australia and New Zealand compiled by S.A. Rayner. 1949.

65 The special vocabulary of civics by S.A. Rayner. 1951.

66 The non-government schools of Australia: a descriptive and statistical account by W.C. Radford. 1953.

67 Education in Queensland: a history of education in Queensland and in the Moreton Bay district of New South Wales by E.R. Wyeth. 1955.

68 A history of teacher training in Western Australia by D. Mossenson. 1955.

69 Frank Tate and his work for education by J.O. Anchen. 1956.

70 Documents on the establishment of education in New South Wales, 1789–1880 by D.S. Griffiths. 1957.

71 Peter Board: his contribution to the development of education in New South Wales by A.R. Crane and W.G. Walker. 1957.

72 Growing up in an Australian city: a study of adolescents in Sydney by W.F. Connell, E.P. Francis and E.E. Skilbeck. 1957.

73 Supervision and inspection of primary schools by D.G. Ball, K.S. Cunningham, and W.C. Radford. 1961.

74 Psychological and educational bases of academic performance by C. Sanders. 1961.

75 School leavers in Australia, 1959–60 by W.C. Radford. 1962.

76 Listening comprehension: a factorial analysis by D. Spearritt. 1962.

77 Growing up in Karribee: a study of child growth and development in an Australian rural community by W.J. Campbell. 1963.

78 An assessment of the Cuisenaire-Gattegno approach to the teaching of number in the first year at school by R.W. Rawlinson. 1965.

79 Music education: the background of research and opinion by V. Horner. 1965.

80 Agricultural education in Australia by R.N. Farqhar. 1966.

81 Marking English compositions by G.W.H. Gosling. 1966.

82 New methods and materials in spelling: a critical analysis by D.M. Bennett. 1967.

83 Music in Australian schools by G. Bartle. 1968.

84 Teaching of foreign languages in Australia by O. Wykes and M.G. King. 1968.

85 Some aspects of performance in mathematics in Australian schools: a report on Australian participation in the International Study of Educational Achievement in Mathematics in 1964 by J.P. Keeves and W.C. Radford. 1969.

86 Children's classification skills by M. Nixon. 1971.

87 Some effects of winning a Commonwealth Secondary Scholarship award compiled by R.E. Wilkes and T.E. Noble. 1971.

88 The predictive validity of the 1964 Commonwealth Secondary Scholarship Examination by W.T. Renehan. 1972.

89 Educational environment and student achievement: a multivariate study of the contributions of the home, the school, and the peer group to change in mathematics and science performance during the first year at secondary school by J.P. Keeves. 1972.

90 The predictive validity of the 1966 Commonwealth Secondary Scholarship awards by R.E. Wilkes and T.E. Noble. 1972.

91 Hierarchical structure of comprehension skills by M.L. Clark. Volume 1. 1972.

92 Science achievement in Australian secondary schools: some results from the IEA science project by M.J. Rosier. 1973.

93 Teaching behaviour and pupils' number development by G. Allen. 1973.

94 Hierarchical structure of comprehension skills by M.L. Clark. Volume 2. 1974.

95 A study of concrete and formal operations in school mathematics: a Piagetian viewpoint by K.F. Collis. 1975.

96 School leavers in Australia 1971–72 by W.C. Radford and R.E. Wilkes. 1975.

97 Through a rear vision mirror: change and education, a perspective on the seventies from the forties by R.T. Fitzgerald. 1975.

98 Participation in schools? Five case studies by R.T. Fitzgerald, P.W. Musgrave, D.W. Pettit with E. Wind. 1976.

99 Listening in the primary school: views and practices of Australian teachers by T.S. Duff and M.L. Clark. 1976.

100 Seven-year-olds: talking and writing by W.T. Renehan. 1977.

101 Enquiry learning in social studies by G.J. Whitehead. 1978.

102 Educational evaluation: key characteristics by J. Maling Keepes. 1978.

103 The way of tradition: life in an Orthodox Jewish school by B.M. Bullivant. 1978.

104 Teacher preparation in Australia: a history of its development from 1850 to 1950 by B.K. Hyams. 1979.

APPENDIX IV

SELECTED BIBLIOGRAPHY

The published work and papers prepared by the directors of the ACER, K.S. Cunningham, W.C. Radford, and J.P. Keeves, have been collected in this bibliography. The entries have been divided into printed and manuscript material and, within these divisions, have been listed alphabetically under the year of preparation. The location is given for the manuscript material.

CUNNINGHAM, K.S.

Printed Material

1916 Binet and Porteus tests compared: examination of one hundred school journals. *Journal of Educational Psychology*, 1916, 7(10), 552, 554.

1923 Experimental education: An introductory article: Proposed laboratory at teachers college. *Education Gazette and Teachers Aid*, 1923, 23(4), 72.

Experimental education 1: Individual differences. *Education Gazette and Teachers Aid*, 1923, 23(6), 101–2.

The theory and the measurement of intelligence. *Education Gazette and Teachers Aid*, 1923, 23(10), 171–2; 1923, 23(12), 200–1.

1924 The relation of regression to mental development. *Australasian Journal of Psychology and Philosophy*, 1924, 2(2), 96–103.

1926 Teachers College, Columbia University: America's educational mecca. *Education Gazette and Teachers Aid*, 1926, 26(6), 183–5.

1927 *The Measurement of Early Levels of Intelligence*. (Contributions to Education No.259). New York: Teachers College, Columbia University, 1927.

Reports of the Psychological Laboratory, Teachers College, Melbourne: No.X: What do children think of their school? *Education Gazette and Teachers Aid*, 1927, 27(11), 475–6.

The Winnetka plan: an experiment in individual instruction. *Education Gazette and Teachers Aid*, 1927, 27(7), 202–4.

1928 Report on some aspects of education in the United States, I: Comparison of administrative problems in the United States and in Australia. *Education Gazette and Teachers Aid*, 1928, 28(3), 61–4.

Report on some aspects of education in the United States, II: Present tendencies and movements in education in the United States. *Education Gazette and Teachers Aid*, 1928, 28(4), 87–9.

Report on some aspects of education in the United States, III: Some non-academic features of school life in the United States. *Education Gazette and Teachers Aid*, 1928, 28(5), 107–9.

Report on some aspects of education in the United States, IV: New types of schools and methods of instruction. *Education Gazette and Teachers Aid*, 1928, 28(6), 141–3.

Report on some aspects of education in the United States, V: The training of teachers. *Education Gazette and Teachers Aid*, 1928, 28(8), 203–7.

Report on some aspects of education in the United States, VI: Summary of chief issues raised and suggestions. *Education Gazette and Teachers Aid*, 1928, 28(9), 227–9.

Reports of the Psychological Laboratory, Teachers College, Melbourne, No.XI: Victorian teachers college oral group test for grades IV to VIII, by K.S. Cunningham and L.J. Whiteoak. *Education Gazette and Teachers Aid*, 1928, 28(11), 279–80.

The teaching of spelling. *Education Gazette and Teachers Aid*, 1928, 28(3), 55.

1929 Review of *The Education of Mentally Defective Children* by Alice Descoeudres. *Australasian Journal of Psychology and Philosophy*, 1929, 7(2), 156–7.

The opportunity grade. *Education Gazette and Teachers Aid*, 1929, 29(4), 93–5.

Reports of the Psychological Laboratory, Teachers College, Melbourne, No.[XII]: Spelling ability: some international comparisons. *Education Gazette and Teachers Aid*, 1929, 29(6), 137–40.

1930 Educational research in Australia. *Education Gazette and Teachers Aid*, 1930, 30(7), 245–6.

Educational research in Australia [part 2]. *Education Gazette and Teachers Aid*, 1930, 30(8), 274–5.

Educational research in Australia. *Australian Teacher*, 1930, 8(3), 35–6.

Mental deficiency in England: Comparisons with Australia. *Education Gazette and Teachers Aid*, 1930, 30(4), 153–5.

Review of *The Measurement of Progress*, by W.J. Stainer. *Australasian Journal of Psychology and Philosophy*, 1930, 8(2), 154–5.

Some Aspects of Education in the United States of America, by K.S. Cunningham and G.E. Phillips. (ACER Educational Research Series No.2). Melbourne: MUP, 1930.

Vocational guidance: with special reference to general principles and to recent developments in Australia. In Australian and New Zealand Association for the Advancement of Science, *Report of 20th Meeting*, Brisbane: 1930, 92–7.

1931 Arithmetic tests: letter of appreciation. *Education Gazette and Teachers Aid*, 1931 31(11), 304.

Primary Education by Correspondence, Being an Account of the Methods and Achievements of the Australian Correspondence Schools in Instructing Children Living in Isolated Areas. (ACER Educational Research Series No.3). Melbourne: MUP, 1931.

Review of *Groundwork of Educational Psychology* by J.S. Ross. *Australasian Journal of Psychology and Philosophy*, 1931, 9(3), 232–3.

Why children are 'naughty'. In K.S. Cunningham and others, *The Young Child*: A Series of Five Lectures on Child Management. (ACER Educational Research Series No.6). Melbourne: MUP, 1931, 1–14.

1932 Educational measurement and the curriculum. In P.R. Cole (Ed.), *The Primary School Curriculum in Australia*. (ACER Educational Research Series No.16). Melbourne: MUP, 1932, 274–306.

The length of the teacher's professional life. In K.S. Cunningham and others, *Australian Educational Studies*. First series. (ACER Educational Research Series No.14). Melbourne: MUP, 1932, 7–29.

Problem children in Melbourne schools. In K.S. Cunningham et al., *Australian Educational Studies*. First series. (ACER Educational Research Series No.14). Melbourne: MUP, 1932, 75–85.

1933 The Australian Council for Educational Research. *School and Society*, 1933, 38(983), 571–3.

Review of *The Northamptonshire Composition State* by G. Perrie Williams. *Australasian Journal of Psychology and Philosophy*, 1933, 11(4), 318.

1934 *Educational Observations and Reflections, being some Comments on Present-day Education in United States, England and Australia*. (ACER Educational Research Series No.24). Melbourne: MUP, 1934.

Events in education in the English-speaking nations: Australia. *Year Book of Education* (London), 1934, 294–325.

The South African education conference. *Teachers Journal*, 1934, 17(10), 322–3.

The Standardization of an Australian Arithmetic Test, by K.S. Cunningham and W.T. Price. (ACER Educational Research Series No. 21). Melbourne: MUP, 1934.

1935 Admission requirements, tests and examinations. In P.R. Cole (Ed.), *The Education of the Adolescent in Australia*. (ACER Educational Research Series No. 32). Melbourne: MUP, 1935, 228–62.

Events and special features in education in the English-speaking nations: Australia. *Year Book of Education* (London), 1935, 260–77.

Survey of educational systems: Australia. *Year Book of Education* (London), 1935, 60–75.

1936 A critical account of Australian education. *Year Book of Education* (London), 1936, 618–43.

No need to import research expert. *Teachers Journal*, 1936, 19(4), 177–8.

1937 Buildings and equipment. In P.R. Cole (Ed.), *The Rural School in Australia*. (ACER Educational Research Series No.49). Melbourne: MUP, 1937, 95–106.

Education conference: some personalities. *Education Gazette and Teachers Aid*, 1937, 37(5), 166–7.

The education of the adolescent in Australia. *Year Book of Education* (London), 1937, 186–200.

The scope and significance of the NEF Conference. *Education Gazette and Teachers Aid*, 1937, 37(7), 227.

Some personalities [part 2]. *Education Gazette and Teachers Aid*, 1937, 37(6), 192–3.

Some personalities [part 3]. *Education Gazette and Teachers Aid*, 1937, 37(7), 227–9.

Some personalities [part 4]. *Education Gazette and Teachers Aid*, 1937, 37(8), 252–3.

1938 *Education for Complete Living*: Proceedings of the New Education Fellowship Conference, 1937. Edited by K.S. Cunningham with the assistance of W.C. Radford. Melbourne: ACER, 1938.

Examinations in Australia. *Year Book of Education* (London), 1938, 172–98.

1939 *Review of Education in Australia 1938*. Edited by K.S. Cunningham, G.A. McIntyre and W.C. Radford. Melbourne: MUP, 1939.

Technical education in Australia. *Year Book of Education* (London), 1939, 635–64.

1940 *Review of Education in Australia 1939*. Edited by K.S. Cunningham and J.J. Pratt. Melbourne: MUP, 1940.

1943 The use of psychological methods in war-time Australia. *Occupational Psychology*, 1943, 17(3), 111–18.

1944 Australia. *Educational Yearbook* (New York), 1944, 21, 2–20.

1945 Foreword. In Frank G. Kirby, *Libraries in Secondary Schools*. Melbourne: MUP, 1945, 3–5.

1946 The child, the school and the library: [text of address given to the Australian Institute of Librarians Conference, Hobart, Easter 1946]. *Educational Record*, 1946, 42(5), 80–2.

Education for Livelihood, by L.W. Phillips and K.S. Cunningham. (Future of Education No.10). Melbourne: ACER, 1946.

1947 *Children Need Teachers*: A Study of the Supply and Recruitment of Teachers in Australia and Overseas, by K.S. Cunningham and Elwyn A. Morey. (ACER Research Series No.62). Melbourne: MUP, 1947.

Education. In C.H. Grattan (Ed.), *Australia*. Berkeley, Calif.: University of California Press, 1947, 337–56, 431.

1948 Australia. *Year Book of Education* (London), 1948, 169–82.

1950 Australia. *Year Book of Education* (London), 1950, 344–59.

Psychology in education and youth welfare. In F. Baumgarten (Ed.), *Progress of Psychotechnics 1939–1945*. Berne: A. Franke, 1950.

1951 *The Adjustment of Youth: A Study of a Social Problem in the British, American and Australian Communities*. K.S. Cunningham, General Editor. Melbourne: MUP, [1951].

The vocabulary of the Australian child. *Australian Journal of Psychology*, 1951, 3(1), 36–42.

1953 The educational system. In G. Caiger (Ed.), *Australian Way of Life*. (Way of Life Series No.1). London: Heinemann, 1953, 45–67.

1955 Education in Australia. *International Social Science Bulletin*, 1955, 7(2), 196–202.

1956 Education in Australia. In *Australian Junior Encyclopaedia*. Rev. ed. Sydney: Australian Educational Foundation, 1956, Vol.2, 621–7. (First published in 1951).

1957 *The Educational System of Indonesia*: Outline of Structure and Terminology. Djakarta: [Ministry of Education], 1957.

Unesco and education in Indonesia. *Unesco Information Circular*, 1957, 8(2), 2–3.

Universal education and the abolition of war. In Victor H. Wallace (Ed.), *Paths to Peace*: A Study of War, its Causes and Prevention. Melbourne: MUP, 1957, 299–316.

Evidence presented by Dr K.S. Cunningham (Director) and Dr W.C. Radford, representatives of the Australian Council for Educational Research. In New South Wales. Committee Appointed to Survey Secondary Education in New South Wales, *Report*. (Chairman: H.S. Wyndham). Sydney: Government Printer, 1957, Appendix A, Document I, 112–28.

1959 Problems and developments in Indonesian education. [Paper presented to the New Education Fellowship and Victorian Institute of Educational Research, 10 April 1959]. *Victorian Institute of Educational Research Bulletin*, 1959, No.4, 13–18.

1960 Social inertia in education. *Australian Journal of Education*, 1960, 4(3), 139–46.

1961 *The Australian Council for Educational Research and Library Services in Australia*. Melbourne: ACER, [1961].

Supervision and Inspection of Primary Schools, by D.G. Ball, K.S. Cunningham, and W.C. Radford. (ACER Research Series No.73). Melbourne: ACER, 1961.

1962 Education in Australia. In *Australian Junior Encyclopaedia*. 3rd ed. Melbourne: AJE Publications, 1962, Vol.2, 744–50.

1963 *Training the Administrator*: A Study with Special Reference to Education, by K.S. Cunningham and W.C. Radford. Hawthorn, Vic.: ACER, 1963.

1966 Letter to the editor [comments on C.D. Hardie's article, Research and progress in education]. *Australian Journal of Education*, 1966, 10(1), 94–5.

Standards. *Australian Journal of Education*, 1966, 10(1), 1–11.

1967 *An Australian School at Work*, by K.S. Cunningham and Dorothy J. Ross. (Monographs on Secondary Education No.2). Hawthorn, Vic.: ACER, 1967.

The Social Science Research Council of Australia, 1942–1952. Canberra: Social Science Research Council, 1967.

1972 Ideas, theories and assumptions in Australian education. In J. Cleverley and J. Lawry (Eds), *Australian Education in the Twentieth Century*. Camberwell, Vic.: Longman, 1972, 99–123.

1973 Educational research. *Educational Magazine*, 1973, 30(1)93–6.

Manuscript Material

1942 Australia's Cultural Debt to America. Script for short-wave radio talk to the United States. c.1942. ACER archives, series 49, item 30.

The Scientific Selection of Personnel. 1942. State Library of Victoria.

1943 Mental Effects of Air Raids and War Conditions in General. Confidential report prepared by K.S. Cunningham and R.D. Wright, members of the Department's Scientific Advisory Committee, 1943. Department of Home Security, Research and Experiment Section, Technical note, 16. ACER archives, series 49, item 184.

Rural Reconstruction Commission: Notes on evidence given by Dr K.S. Cunningham, August 1943. ACER archives, series 49, item 184.

1944 The ACER and its Work. 1944. ACER archives, series 49, item 183.

The Library in the Community Centre. 1944. Supplied to Common Cause (SRA) for inclusion in proposed booklet. ACER archives, series 49, item 183.

Research in the Social Sciences. Address given to a meeting of the Social Science Research Council, Melbourne. 1944. ACER archives, series 49, item 183.

The University of To-day and To-morrow. Prepared for the *Daily Telegraph* (Sydney). 1944. ACER archives, series 49, item 183.

What Are the Agencies which Will Build this New Man? Prepared for the *Daily Telegraph*, but not used. 1944. ACER archives, series 49, item 183.

Where Do we Go from Here? Published, in part, in *The Age*, 24 October 1944, under the title, The Future of Education. ACER archives, series 49, item 183.

1945 The Place of Psychology in the Social Sciences. Address given to the First Congress of the Australian Branch of the British Psychological Society, Sydney, August 1945. ACER archives, series 49, item 183.

1946 Education and social change. Address read by S.S. Dunn over 5CL, Adelaide, October 1946. ACER archives, series 49, item 183.

Education in Australia. Prepared for Chambers's Encyclopaedia. 1946. ACER archives, series 49, item 186.

The Past and the Future in Rural Education. Prepared for *The Leader*. 1946. ACER archives, series 49, item 183.

1948 Psychology in Education and Youth Welfare in Australia. 1948. ACER archives, series 49, item 186.

1950 Notes on Visit to New Zealand, 10 April to 11 May 1950. State Library of Victoria.

1953 Success and Failure in Australian Universities. 1953. ACER Library.

1957 Some Notes on the SMA Examination (Indonesia). c. 1957. ACER Library.

1969 The Pre-history of ACER. Based on an address to ACER staff, March 1969. ACER Library.

RADFORD, W.C.

Printed Material

1938 *Education for Complete Living*; Proceedings of the New Education Fellowship Conference, 1937. Edited by K.S. Cunningham with the assistance of W.C. Radford. Melbourne: ACER, 1938.

1939 *The Educational Needs of a Rural Community*. (ACER Educational Research Series No.56). Melbourne: MUP, 1939.

Review of Education in Australia 1938. Edited by K.S. Cunningham, G.A. McIntyre and W.C. Radford. Melbourne: MUP, 1939.

1949 Socialization, the large school and the rival child. *Forum of Education*, 1949, 8(2), 64-74.

1950 Parents could help. *Educational Magazine*, 1950, 7(2), 62-3.

Review of Education in Australia 1940-1948. Edited by W.C. Radford, D.M. Waddington, and J.A. Keats. Melbourne: MUP, 1950.

1952 *Children in Groups*. (Primary School Studies No.8). Melbourne: ACER, [1952].

1953 *The Functional Classification of Child Speech*. (ACER Information Bulletin No.30). Melbourne: ACER, 1953.

Growth in Vocabulary and Expression in the First Two Years at School: A Pilot Investigation. (ACER Information Bulletin No.29). Melbourne: ACER, 1953.

The Non-government Schools of Australia: A Descriptive and Statistical Account. (ACER Research Series No.66). Melbourne: ACER, 1953.

1954 *A General Survey of Educational Research in the United States of America, Canada, England and Scotland*. Melbourne: ACER, 1954.

Socio-economic Status and English Expression. (ACER Information Bulletin No.33). Melbourne: ACER, 1954.

Some Sex Differences in the Infant School. (ACER Information Bulletin No.32). Melbourne: ACER, 1954.

1955 *A General Survey of Educational Research in the United States of America, Canada, England and Scotland.* 2nd ed. Melbourne: ACER, 1955.

Routine, relevation or revolution; the function of research in education. *Journal of Education* (Melbourne), 1955, 2(2), 54–60.

1956 *Review of Education in Australia 1948–1954.* Edited by W.C. Radford, R.M. McDonnell, and P.M. Staurenghi. Melbourne: ACER, 1956.

1957 Educational research in Australia. *Review of Educational Research*, 1957, 27(1), 7–19.

Educational research in Australia 1950–1956. *Australian Journal of Education*, 1957, 1(1), 45–54.

Educational research on problems of the primary school 1950–1956, by W.C. Radford and J.J. Pratt. *Australian Journal of Education*, 1957, 1(2), 124–34.

Evidence presented by Dr K.S. Cunningham (Director) and Dr W.C. Radford, representatives of the Australian Council for Educational Research. In New South Wales, Committee Appointed to Survey Secondary Education in New South Wales, *Report*, (Chairman: H.S. Wyndham), Sydney: Government Printer, 1957, 112–28.

Some principles of learning and elementary science. In C.D. Hardie (Ed.), *Science in Australian Primary Schools*. Melbourne: MUP, 1957, 45–55.

Topics for discussion and for future investigation. In C.D. Hardie (Ed.), *Science in Australian Primary Schools*. Melbourne: MUP, 1957, 84–7.

1958 Australian interest in sport and the secondary school curriculum. *Year Book of Education* (London), 1958, 426–9.

Education for the prevention of alcoholism. *Education Gazette* (South Australia), 1958, 74(860), 130–4.

Review of *Commonwealth Universities Yearbook 1958*. *Australian Journal of Education*, 1958, 3(1), 63.

Secondary education in New South Wales: [comments on Wyndham report]. *Forum of Education*, 1958, 17(1), 8–11.

Some aspects of the future of secondary education in Australia: [address to the annual conference of the South Australian Institute of Teachers, May 1958]. *South Australian Teachers Journal*, 1958, 8(5), 18–19; 1958, 8(6), 18–19; 1958, 8(7), 25–6; 1958, 8(8), 32–3.

Some Characteristics of Students Proceeding to Higher Technical Education. (ACER Information Bulletin No. 36). Melbourne: ACER, 1958.

1959 East, west or neither? *Parent and Citizen*, 1959, 9(3), 8–12.

The education of the gifted child: [summary of address to the Australian Teachers Federation Conference, Melbourne, January 1959]. *Teachers Journal*, 1959, 4(1), 61–3.

A new parable of the talents: [address to the annual conference of the State School Committees and Councils Association of Victoria]. *School Bell*, 1959, 14(1), 23–31, 34.

The purpose and aim of a primary teachers college: [address to teachers college staff, February 1959]. *Australian Journal of Education*, 1959, 3(1), 21–32.

The search for talent: [address to Section J of the Australian and New Zealand Association for the Advancement of Science, August 1958]. *Australian Journal of Science*, 1959, 21(6a), 149–57.

1960 *Australia 1970 and Beyond; Education, Science and Culture*: [paper given at the 26th summer school of the Australian Institute of Political Science, Canberra]. Melbourne: ACER, 1960.

The education of the gifted child: [address to the Australian Teachers Federation Conference, Melbourne, January 1959]. *Australian Journal of Education*, 1960, 4(1), 1–9.

School Pupils and School Leavers in Five States: Estimates of Numbers from Successive 13-year-old Generations of School Children who will Continue at and Leave School. (ACER Information Bulletin No. 42). Melbourne: ACER, 1960.

Some current problems in education: [address given during Christian Social Week, September 1960]. *Twentieth Century*, 1960, 15(2), 27–35.

Symposium on mass media in Australia: Introduction. *Year Book of Education* (London), 1960, 313–14.

Symposium on mass media in Australia: Other media. *Year Book of Education* (London), 1960, 327–8.

A Word List for Australian Schools. Compiled by W.C. Radford. Student ed. Teachers ed. Melbourne: ACER, 1960.

A Word List for Australian Schools: Some Suggestions for its Use. Melbourne: ACER, 1960.

1961 Australian Council for Educational Research. *Australian Pre-school Quarterly*, 1961, 1(3), 20–1.

Education, science and culture. In J.F. Blaxland, G. Major and O.E. Phillips (Eds), *Australia: 1970 and Beyond*. Sydney: Angus & Robertson, 1961, 33–79.

The gifted child in Australia. *Year Book of Education* (London), 1961, 227–35.

Individual differences and classroom organization: [address to Australian and New Zealand Association for the Advancement of Science, Perth, August 1959]. *Australian Journal of Education*, 1961, 5(1), 3–10.

Research into education 1951–1960. *Education News*, 1961, 8(3), 34–7.

Supervision and Inspection of Primary Schools, by D.G. Ball and K.S. Cunningham and W.C. Radford. (ACER Research Series No.73). Melbourne: ACER, 1961.

Teaching machines: [address to the South Australian Institute of Educational Research, October 1961]. *South Australian Teachers Journal*, 1961, 11(11), 14–16; 1962, 12(1), 32–3; 1962, 12(2), 30–3.

1962 Australia and New Zealand: 1, Australia. *Review of Educational Research*, 1962, 32(3), 217–24.

A 'counter-irritant'. *Australian Financial Review*, 14 June 1962, p.4.

Evaluating, recording and reporting pupil progress. In University of Queensland, Faculty of Education, *Second Conference on School Administration*, St Lucia: 1962, 7–19.

Post-war developments in primary schools in Australia: address to Australian and New Zealand Association for the Advancement of Science, August 1962. *Forum of Education*, 1962, 21(3), 97–102.

A Prediction of Secondary School Enrolments and of Potential University Enrolments in Australia. Melbourne: ACER, 1962.

Review of *The Foundations of Education* by W.F. Connell and others. *Australian Journal of Education*, 1962, 6(3), 226–7.

School Leavers in Australia 1959–1960. (ACER Research Series No.75). Melbourne: ACER, 1962.

1963 Formal training for library service: [address to Library Association of Australia, Canberra, August 1962]. *Australian Library Journal*, 1963, 12(1), 11–14.

Selection of students, and selection by students. *Medical Journal of Australia*, 1963, 12(7), 257–8.

Training the Administrator: A Study with Special Reference to Education, by K.S. Cunningham and W.C. Radford. Hawthorn, Vic.: ACER, 1963.

Unesco Planning Mission to Northern Rhodesia. *Education in Northern Rhodesia*: A Report and Recommendations Prepared by the

Unesco Planning Mission 28 September–2 December 1963. Chairman: W.C. Radford. Paris: Unesco, 1963. ACER archives, series 54, item 264.

1964 *A Field for Many Tillings*: Research in Education in Australia Today. Hawthorn, Vic.: ACER, 1964.

Oculo-motor habits and their improvement. In E.M. Bannan and others, *Aspects of Reading in the Primary School*: A Review of Research. Hawthorn, Vic.: ACER, 1964, 6–19.

Providing teachers for developing countries. *Australian Journal of Education*, 1964, 8(1), 6. Reprinted in *New Horizons in Education*, 1964, No.31, 19.

Research conducted by Australia into reading and its problems. In E.M. Bannan and others, *Aspects of Reading in the Primary School*: A Review of Research. Hawthorn, Vic.: ACER, 1964, 127–41.

Research in education. In R.W.T. Cowan (Ed.), *Education for Australians*: A Symposium. Melbourne: Cheshire, 1964, 255–74.

Research in education: guest editorial. *Educational Magazine*, 1964, 21(4), 145–6. Reprinted in *Educational Record*, 1964, 60(7), 96–7.

1965 Education for international understanding: [excerpt from 1965 Mackie Memorial Lecture]. *Queensland Teachers Journal*, 1965, 70(10), 312–13.

Mother wit and mother tongue: thoughts on the relation of language to mental development: [address to the Tasmanian Institute of Educational Research, Hobart, December 1964]. *Tasmanian Education*, 1965, 17(1), 2–11.

Recent and current activities of the Australian Council for Educational Research. *Education News*, 1965, 10(1), 3–4.

Responsibility in education: the challenge of New Guinea: [excerpt from 1965 Mackie Memorial Lecture]. *Education* (NSW), 1965, 46(11), 91.

Survey of music in Australian schools. *Education News*, 1965, 10(2), 17.

1966 Comments [on editorial, Evaluating our young scholars, *Australian*, 8 December 1966, p.6]. *Australian*, 13 December 1966, p.6.

Education in Australia for personal and national development: The Mackie Lectures, 1965. Sydney: The Mackie Memorial Trust Committee, 1966. Reprinted from *Forum of Education*, 1966, 25(1), 1–28.

Staying Longer at School: An Examination of Some Statistics of Enrolments and Discussion of Certain Features of the Tendency to Stay

Longer at School. (ACER Information Bulletin No.47). Hawthorn, Vic.: ACER, 1966.

Survey of General Ability of Pupils in Form 4, 5, and 6 of Victorian Secondary Schools in 1962. Report No.2, by W.C. Radford and T.S. Duff. (ACER Memorandum Series No.4). Hawthorn, Vic.: ACER, 1966.

Teachers in Australia: A history of the College: Report: [based on an address to the Australian College of Education, Sydney, May 1966]. *Australian Journal of Education*, 1966, 10(2), 119–22.

Testing in the primary school. In Tasmania. Education Department. Curriculum Centre, *Testing in the Primary School*: Proceedings of the Third Vacation Seminar, 30 August–1 September 1965, Launceston. Hobart: 1966, 1–15.

What should universities be able to assume about the qualifications of matriculants and how can these expectations be met by secondary schools: Australian Council for Educational Research submission to [the] Committee on Australian Tertiary Education. *Australian Journal of Education*, 1966 10(1), 31–7.

1967 A final statement. In *Research into Education, Improving its Value to the Practice of Education:* Papers presented at a conference convened by the ACER, 18–23 May 1967. Hawthorn, Vic.: ACER, 1967.

Research into secondary education in Australia. *International Review of Education*, 1967, 13(3), 282–4.

1968 Australian seminar on educational planning. *Education News*, 1968, 11(12), 3–6.

Education needs in science and technology. *Economic Papers*, 1968, No.27, 31–9.

Evaluation of Progress in Education: A Working Paper Prepared for the Unesco Seminar on Educational Planning to be held in Canberra 1968. Hawthorn, Vic.: ACER, 1968.

Investment in certainty of outcomes. *Australasian Science Teachers Association Proceedings*, 1968, 17, 29–38.

The place of ACER in Australian education. *South Australian Science Teachers Association Journal*, 1968, 68(3), 8–15.

1969 Evaluation of progress in education. *Australian Journal of Education*, 1969, 13(2), 209–32.

Review of National policies for the social sciences, by S. Encel, [*Social Science Information*, 1968, 7(3), 201–7], *Social Science Information*, 1969, 7(6), 177–8.

Some Aspects of Performance in Mathematics in Australian Schools: A Report on Australian Participation in the International Study of

Educational Achievement in Mathematics in 1964, by J.P. Keeves and W.C. Radford. (ACER Research Series No.85). Hawthorn, Vic.: ACER, 1969.

Some changing attitudes to and views on evaluation and measurement. In Australian College of Education, *Educational Measurement and Assessment*: [concluding address at Tenth Annual Conference]. Melbourne: 1969, 150–63.

1970 The college and equality of opportunity in education: [address to the Sydney Chapter of the Australian College of Education, July 1970]. *Australian College of Education. Victorian Chapter. Newsletter*, 1970, 7(3), 16–24.

Not so very long ago: Significant events in the history of Australian libraries with special reference to school libraries. *Australian School Librarian*, 1970, 7(4), Suppl. i–vii.

Public Examinations for Queensland Secondary School Students: Report of the Committee Appointed to Review the System of Public Examinations for Queensland Secondary School Students and to Make Recommendations for the Assessment of Students' Achievement. (Chairman: W.C. Radford). Brisbane: Department of Education, 1970.

Research and development in education: The development aspect. *New South Wales Institute for Educational Research Bulletin*, 1970, 3–5.

1971 Higher degrees for Australian librarians. *Australian Library Journal*, 1971, 20(3), 9–13.

Involvement in the application of educational research. In F.W. Mitchell (Ed.), *Looking Ahead in New Zealand Education*. Wellington: Reed, 1971, 142–54.

People, policies and planning. In Australian College of Education, *Planning for Effective Education:* papers at the Twelfth Annual Conference. Melbourne: 1971, 9–16.

Some Cognitive Skills in Aboriginal Children in Victorian Primary Schools, by D.W. Bruce, M. Hengeveld and W.C. Radford. (ACER Progress Report 2). Hawthorn, Vic.: ACER, 1971.

1972 *Teachers for Commonwealth Schools*: A Report to the Commonwealth Department of Education and Science on Aspects of the Organization, Careers, and Salaries in Schools to be Staffed by the Commonwealth Teaching Service. Prepared by W.D. Neal and W.C. Radford. Hawthorn, Vic.: ACER, 1972.

1973 An editor retires; Professor Connell's sixteen years. *Australian Journal of Education*, 1973, 17(1), 1.

Research into Education in Australia, 1972, by W.C. Radford and R.

McDowell. (Australian Advisory Committee on Research and Development in Education Report No. 1). Canberra: AGPS, 1973.

School Leavers in Australia, April 1 1971–March 31, 1972: An Interim Report, by W.C. Radford and R. Wilkes. Hawthorn, Vic.: ACER, 1973.

Trends in Australia, New Zealand and Scotland. In S.S. Dunn (Ed.), *Public Examinations: The Changing Scene*. Adelaide: Rigby, 1973, 1–34.

Where next? by W.C. Radford and S.S. Dunn. In S.S. Dunn (Ed.), *Public Examinations: The Changing Scene*. Adelaide: Rigby, 1973, 206–15.

1974 The Australian Council for Educational Research. In D.A. Jecks (Ed.), *Influences in Australian Education*. Perth: Carroll's, 1974, 198–217.

1975 It's too esoteric for me: [presidential address to the Australian Association for Research in Education, November 1974]. *Australian Educational Researcher*, 1975, 2(1), 6–16.

School Leavers in Australia 1971–1972, by W.C. Radford and R. Wilkes. (ACER Research Series No. 96). Hawthorn, Vic.: ACER, 1975.

1976 Australia. In F.M. Ottobre (Ed.), *Admission to Higher Education in Sixteen Countries and some International Developments*. Princeton, NJ: International Association for Educational Assessment, 1976, 39–52.

Kenneth Stewart Cunningham 1890–1976, by S.S. Dunn and W.C. Radford. *Australian Journal of Education*, 1976, 20(2), 227–30.

Kenneth Stewart Cunningham 1890–1976, by S.S. Dunn and W.C. Radford. *Australian Educational Researcher*, 1976, 3(3), 12–13.

1978 Public examinations for Queensland secondary school students 1970. In W.J. Campbell and others, *School-based Assessments*: Aspirations and Achievements of the Radford Scheme in Queensland. (Education Research and Development Committee Report No. 7A). Canberra: AGPS, 1978, 57–80.

Manuscript Material

1954 Consolidation: An Appraisal of the Effects of a Scheme of Consolidation of Schools in a Rural Area in Australia. PhD thesis, University of London, 1954. ACER library.

System of Training: Age of Entry of Cadet Midshipmen into the RAN College: Summary of Recommendations by H. Philp, W.C. Radford, B.W. Hone, and H. Buchanan. 1954. ACER archives, series 54, item 350.

1955 Some Suggestions for Research in Science for Primary Schools. 1955. ACER archives, series 54, item 138.

1956 Educational Research in Australia 1950–1956. Address to the Victorian Institute of Educational Research, November 1956. ACER archives, series 54, item 138.

What Should the Road Safety Movement's Goal be in the Field of Child Education. Prepared for the Road Safety Congress, October 1956. ACER archives, series 54, item 138.

1957 Priorities in the Primary School. Address at Haileybury College, April 1957. ACER archives, series 54, item 138.

Some Comments on Shortages of Professional Talent. Summary of address to Headmasters Association, Perth, May 1957. ACER archives, series 54, item 138.

Some Thoughts on Examining in Schools. Summary of address, Geelong, October 1957. ACER archives, series 54, item 138.

Starting School in Australia, May 1957. ACER archives, series 54, item 138.

Why Do you Send your Child to a Secondary School, and What Do you Expect of the School? Address at Nunawading High School, September 1957. ACER archives, series 54, item 138.

1958 Examinations. Address to Wesley College parents, October 1958. ACER archives, series 54, item 138.

Problems and Techniques of Selection and Placement. Address to the Conference of the Australian regional groups of the Royal Institute of Public Administration, Canberra, November 1958. ACER archives, series 54, item 138.

Tests of Intelligence and Intelligence Quotients (IQs). Prepared for the Committee on the Entrance Examination for the Administrative Division of the Victorian Public Service, December 1958. ACER archives, series 54, item 175.

1960 Anzac Day. Address at Wesley College, April 1960. ACER archives, series 54, item 139.

Coburg Teachers College Graduation Address. 1960. ACER archives, series 54, item 139.

The Expression of Aims in the Primary School Curriculum. Address to the Junior School, Geelong Grammar School, May 1960. ACER archives, series 54, item 139.

Modern Languages in Australia. Prepared for the Australian Unesco Committee for Education, June 1960. ACER archives, series 54, item 139.

National Survival and the Gifted Child. Talk on ABC radio, June 1960. ACER archives, series 54, item 139.

The Second Regional Conference of National Commission for Unesco in Asian Countries, Manila, 18–23 January 1960: Report to the Australian National Advisory Committee for Unesco, by W.C. Radford and H.J. Russell. ACER archives, series 54, item 139.

Social Education in the Primary School. Address to the Victorian Institute of Educational Research, April 1960. ACER archives, series 54, item 139.

Some Background Aspects of Australian Education in 1960. ACER archives, series 54, item 139.

The Training of Kindergarten Teachers. Address at public meeting, April 1960. ACER archives, series 54, item 139.

1961 Burwood Teachers College Graduation Address, June 1961. ACER archives, series 54, item 139.

Camberwell High School Speech Night, December 1961. ACER archives, series 54, item 139.

Memorandum for Submission to the Honourable the Premier, 17 April 1961, in Connection with Kindergarten Development in Victoria. Presented on behalf of the Kindergarten Teachers College, 1961. ACER archives, series 54, item 168.

Qualities of an Administrator. Seminar paper, Hobart, June 1961. ACER archives, series 54, item 139.

Secondary Education in Victoria, 1945–1960. ACER archives, series 54, item 139.

Some Qualifications of Science Teachers: Some Known Facts of Present Situation. Address to the Australian Science Teachers Association, Adelaide, May 1961. ACER archives, series 54, item 139.

1962 Machines that Teach. [1962]. ACER archives, series 54, item 354.

The School as a Studying Community. Address at Headmasters Conference, Adelaide, August 1962. ACER archives, series 54, item 140.

Self-instruction: Programming Materials. University extension lecture, April 1962. ACER archives, series 54, item 140.

1965 Proposals for an Alteration of the System of Examination and Certification in Tasmanian Secondary Schools. Submission to the Tasmanian Minister for Education. 1965. ACER archives, series 54, item 180.

1966 Australian National Advisory Committee for Unesco. Twentieth

Anniversary Meeting: Chairman's Address, April 1966. ACER archives, series 54, item 140.

Frankston Teachers College Graduation Address, December 1966. ACER archives, series 54, item 140.

A Proposal for a National Institute for Educational Development and Research into Education. January 1966. ACER archives, series 54, item 230.

Recent Developments in Educational Research. Outline of address at the annual meeting of the General Board of Religious Education, Malvern, Vic., May 1966. ACER archives, series 54, item 140.

1967 Education: Where from here? Seminar paper at Melbourne meeting of Australian Jaycees, October 1967. ACER archives, series 54, item 140.

Education's Role in Making the Roads Safe. Paper presented during Australian Study Week on Road Safety Practices, June 1967. ACER archives, series 54, item 140.

1968 Applications of Technology to the Educational Process. Paper prepared for the Directors of the Myer Foundation, December 1968. ACER archives, series 54, item 140.

Australian Mutual Provident Society. Guest of Honour Toast, January 1968. ACER archives, series 54, item 140.

Australian National Seminar on Educational Planning, 7–22 September 1968. An Appraisal: What Was Intended and What Has Resulted. 1968. ACER archives, series 54, item 299.

Education and Training in Australia. Paper for His Royal Highness the Duke of Edinburgh's Third Commonwealth Study Conference, Australia, 1968. ACER archives, series 54, item 140.

The Future Needs of Research in Education. Prepared as a submission to the Department of Education and Science, 1968. ACER archives, series 54, item 318.

1969 The Australian Council for Educational Research. Address to ACER staff, November 1969. ACER archives, series 54, item 141.

On Doing and Leaving Undone. Address to the Queensland Chapter of the Australian College of Education, September 1969. ACER archives, series 54, item 141.

Research and Development in Education. Address to the Newcastle Branch of the New South Wales Institute for Educational Research, 1969. ACER archives, series 54, item 141.

1970 Adelaide Kindergarten Teachers College Graduation Address, April 1970. ACER archives, series 54, item 141.

The Future of the Junior and Senior Examinations in Queensland. June 1970. ACER archives, series 54, item 184.

Old and New Horizons. Hopes and Fears, Australian Association for Research in Education Founders Conference, November 1970. ACER archives, series 54, item 210.

Priorities in the School. Address to Haileybury College Junior School, May 1970. ACER archives, series 54, item 141.

School Assessments for the Junior and Senior Examinations [in Queensland]. June 1970. ACER archives, series 54, item 184.

Some Questions on the Relation of Research and Progress in Education Address to the South Australian Institute of Educational Research and to the South Australian Chapter of the Australian College of Education, April 1970. ACER archives, series 54, item 141.

Trends and Issues in Australian Education and their Implications for the Place of Science in Australian Secondary Schools. Address at Australian Science Education Project Guidelines Conference, Melbourne, January 1970. ACER archives, series 54, item 141.

1971 Melbourne Kindergarten Teachers College Graduation Address. December 1971. ACER archives, series 54, item 141.

1972 Goals and Objectives of Child Development Programs in the 0–6 Years Period. Prepared for the Victorian Consultative Council on Pre-school Child Development, April 1972. ACER archives, series 54, item 147.

Monash University Graduation Ceremony Address. On the occasion of the conferring of the Doctor of Laws Honoris Causa, May 1972. ACER archives, series 54, item 141.

Perceptions of the Implementation of the Radford Report. Address at the third residential conference of the Queensland Chapter of the Australian College of Education, October 1972. ACER archives, series 54, item 141.

The Radford Report. Address to University of Queensland students, October 1972. ACER archives, series 54, item 141.

Some Aspects of Research into Education in Australia. Paper for the 44th Congress of the Australian and New Zealand Association for the Advancement of Science, August 1972. ACER archives, series 54, item 141.

1975 One Man's Meat: A View on Possible Activities of the South Australian Council for Educational Planning and Research. May 1975. ACER archives, series 54, item 141.

1976 Institute of Early Childhood Development, State College of Victoria: Address at the opening of Mooroolbeek Hall and Diamond Jubilee, March 1976. ACER archives, series 54, item 141.

KEEVES, J.P.

Printed Material

1946 University education. In M. Hubbard (Ed.), *Phoenix, 1946*. Adelaide: Adelaide University Union, 1946, 55-62.

1959 The case against general science. *Australian Science Teachers Journal*, 1959, 5 (2), 35-41.

1962 *A Review of Programmed Instruction*. Melbourne: ACER, 1962.

Learning and programmed instruction. *Curriculum News*, 1962, 2, 19-27.

1963 *A Report on Certain New Educational Materials*. (ACER Special Distribution Report No.4). Melbourne: ACER, 1963.

A review of experimental research in programmed instruction. *Curriculum News*, 1963, 2, 116-21.

1965 Overseas contributions to Australian classroom practice in primary school mathematics. In Queensland Institute for Educational Research, *Modern Mathematics for the Primary School*. (1965 Lecture Series). Brisbane: 1965, 1 – 30.

Programmed Instruction in Australia. (ACER Information Bulletin No.44). Hawthorn, Vic.: ACER, 1965.

Some Observations on Mathematics in Primary and Lower Secondary Schools in England and the United States of America: A Report of a Recent Visit. (ACER Information Bulletin No.43). Hawthorn, Vic.: ACER, 1965.

Dependent Clauses in Latin: An Exploratory Study of the Value of Programmed Instruction in Dependent Clauses in Latin at the Intermediate Certificate Level in Victoria, Australia, by H.A.K. Hunt and J.P. Keeves. (Research Bulletin No.1). Melbourne: ACER, 1965.

1966 Change in primary school mathematics. *Education News*, 1966, 9, 14-17.

Evaluation of Achievement in Mathematics. (Memorandum Series No.6). Hawthorn, Vic.: ACER, 1966.

1968 The IEA Science Project. *Australian Science Teachers Journal*, 1968, 14, 26-34.

Variation in Mathematics Education in Australia. Hawthorn, Vic.: ACER, 1968.

1969 *Some Aspects of Performance in Mathematics in Australian Schools*, by J.P. Keeves and W.C. Radford. (ACER Research Series No.85). Hawthorn, Vic.: ACER, 1969.

1972 *Educational Environment and Student Achievement*. (ACER Research Series No.89). Hawthorn, Vic.: ACER, 1972.

1973 Differences between the sexes in mathematics and science courses. *International Review of Education*, 1973, 19(1), 47–62.
Same In D.E. Edgar (Ed.), *Sociology of Australian Education*. Sydney: McGraw Hill, 1975, 41–55.
Same *Differences between the Sexes in Mathematics and Science Courses*. (IEA (Australia) Report 1973:6). Hawthorn, Vic.: ACER, 1973.

Science Education in Nineteen Countries: An Empirical Study, by J.P. Keeves and L.C. Comber. (International Studies in Evaluation No.1). Stockholm: Almqvist & Wiksell and New York: John Wiley, 1973.

Variation between Countries in Science Achievement. Paper presented at ANZAAS Congress, Perth. (IEA (Australia) Report 1973:10). Hawthorn, Vic.: ACER, 1973.

1974 *Can Teachers Make a Difference?* (Home Environment and School Study Report 1974:1). Hawthorn, Vic.: ACER, 1974.

The Detection of Configural and Curvilinear Relationships. (Home Environment and School Study Report 1974:3). Hawthorn, Vic.: ACER, 1974.

Educational environment and student achievement. In K. Marjoribanks (Ed.), *Environments for Learning*. Slough, Berks.: National Foundation for Educational Research, 1974, 245–57.

The Effects of Coaching for the Commonwealth Secondary Scholarship Examination. (CSSE Research Report No.3). Hawthorn, Vic.: ACER, 1974.

The Effects of the Conditions of Learning in the Schools on Educational Achievement: A discussion of the debate between J.S. Coleman and G.F. Peaker at the Harvard–IEA Conference on Educational Achievement at Harvard University, November 1973. (IEA (Australia) Report 1974:2). Hawthorn, Vic.: ACER, 1974.

The Home, the School and Achievement in Mathematics and Science. (Home Environment and School Study Report 1974:4). Hawthorn, Vic.: ACER, 1974.

The IEA Science Project: Science Achievement in Three Countries – Australia, the Federal Republic of Germany and the United States. (IEA (Australia) Report 1974:4). Hawthorn, Vic.: ACER, 1974.

Same In *Implementation of Curricula in Science Education*: Report of an International Seminar . . . organized by the German Commission for UNESCO and the Institute for Science Education at the University of Kiel, Kiel, March 16–18, 1972. Cologne: Deutsche UNESCO-Kommission, 1974, 158–78.

The Performance Cycle: Motivation and Attention as Mediating Variables in School Performance. (Home Environment and School Study Report 1974:5). Hawthorn, Vic.: ACER, 1974.

Sex Differences in Preparing for Scientific Occupations, by J.P. Keeves and A.D. Read. (IEA (Australia) Report 1974:6). Hawthorn, Vic.: ACER, 1974.

Condensed In R.K. Browne and D.J. Magin (Eds), *Sociology of Education*: A Source Book of Australian Studies. Melbourne: Macmillan, 1974, 322–40.

Some Attitude Scales for Educational Research Purposes. (Home Environment and School Study Report 1974:2). Hawthorn, Vic.: ACER, 1974.

Some Studies in the Validity of the CSSE Tests, by J.P. Keeves and J.D. Thomson. (CSSE Research Report No. 1). Hawthorn, Vic.: ACER, 1974.

1975 Approaches to the goal of educational equality: Will the Karmel programs work? In J.V. D'Cruz and P.J. Sheehan (Eds), *The Renewal of Australian Schools*: Essays on Educational Planning in Australia after the Karmel Report. Richmond, Vic.: Primary Education, 1975, 59–76.
Same In *Twentieth Century*, 1974, 29, 59–76.

Concerning Leisure, by J.P. Keeves and U. Ozolins. (IEA (Australia) Report 1975:3). Hawthorn, Vic.: ACER, 1975.

The needs of education in Australian schools. In J.V. D'Cruz and P.J. Sheehan (Eds), *The Renewal of Australian Schools*: Essays on Educational Planning in Australia after the Karmel Report. Richmond, Vic.: Primary Education, 1975, 38–58.
Same In *Twentieth Century*, 1974, 29, 38–58.

1976 *Australian Studies in School Performance, Volume 1: Literacy and Numeracy in Australian Schools*: A First Report, by J.P. Keeves and S.F. Bourke. (ERDC Report No.8). Canberra: AGPS, 1976.

Curricular Factors Influencing School Learning: Time and Opportunity to Learn. (IEA (Australia) Report 1976:2). Hawthorn, Vic.: ACER, 1976.

Curricular factors influencing school learning. *Studies in Educational Evaluation*, 1976, 2(3), 167–84.

Literacy and numeracy in Victorian schools, by J.P. Keeves and S.F. Bourke. *Victorian Institute of Educational Research Bulletin*, 1976, No.36, 55–62.

The role of the state in maintaining the quality of education in Australia. In B.S. Crittenden and J.V. D'Cruz (Eds), *Essays on Quality in Education*. Richmond, Vic.: Primary Education, 1976.
Same In *Twentieth Century*, 1975, 30, 60–76.

1977 *Australian Studies in School Performance, Volume III: The Mastery of Literacy and Numeracy*: Final Report, by S.F. Bourke and J.P. Keeves. (ERDC Report No.13). Canberra: AGPS, 1977.

Literacy and numeracy in perspective. *Issues in Educational Research*, 1977, 3, 1–10.

The validity of alternative methods of scaling school assessments at the HSC level for the colleges and high schools of the Australian Capital Territory, by J.P. Keeves, B. McBryde and L.A. Bennett. In Australian Association for Research in Education, *Curriculum Evaluation*: Conference Papers. Canberra: 1977. various pagings.

1978 *Educating for Literacy and Numeracy in Australian Schools*, by J.P. Keeves, J.K. Matthews and S.F. Bourke. (Australian Education Review, No.11). Hawthorn, Vic.: ACER, 1978.

Home background and the outcomes of schooling. In Australian College of Education, *Quality in Australian Education*. Carlton, Vic.: 1978, 95–115.

Renewal in Australian education: a changing prospect, by J.K. Matthews and J.P. Keeves. In J. V. D'Cruz and P.J. Sheehan (Eds), *The Renewal of Australian Schools*: A Changing Perspective in Educational Planning. 2nd ed. Hawthorn, Vic.: ACER, 1978, 185–201.

Transition from school to work: an emerging problem, by J.P. Keeves and J.K. Matthews. In J.V. D'Cruz and P.J. Sheehan (Eds), *The Renewal of Australian Schools*: A Changing Perspective in Educational Planning. 2nd ed. Hawthorn, Vic.: ACER, 1978, 242–61.

1979 Australia, by J.P. Keeves and J.K. Matthews. In F.M. Ottobre (Ed.), *Criteria for Awarding School Leaving Certificates*: An International Discussion Based on the Proceedings of the 1977 Conference of the International Association for Educational Assessment. Oxford: Pergamon, 1979, 85–93.

Literacy, numeracy and educational achievement in Queensland schools: A public lecture . . . [to] the Queensland Institute of Educational Research, 28 April 1978. (Occasional paper No.4). Bardon, Qld: Professional Development Centre, 1978.

The research contribution to educational practice. In J.S. Shellard (Ed.), *Educational Research for Policy Making in Australia*. Hawthorn, Vic.: ACER, 1979, 44–68.

1980 *The Higher School Certificate Examination in New South Wales*: The Report of the Review Panel [J.P. Keeves and G.W. Parkyn] to the Board of Senior School Studies. Sydney: Govt Pr, 1980.

INDEX

Academy of the Social Sciences in Australia, 140, 308
accountability, 299
Adey, W.J., 113
adult education, 108, 111, 144, 301
Ainley, J.G., 302*n*
Allen, L.W., 69
American Educational Research Association, 200
American Guidance Service, 245
Amor, F.M., 168,
  see also McPherson, F.M.
Andersen, W.E., 192
Anderson, F., 99
Anderson, J., 295*n*
Andrews, C., 75
anthropometry, 26, 32
arithmetic tests, 29–30, 65–9, 173
Army Psychology Service, 132, 171
Ashby, E., 146, 147
Australian Advisory Committee on Research and Development in Education, 221, 225, 227, 229, 294, 307, 310, 314
  see also Education Research and Development Committee
Australian Army Classification Test, 132
Australian Association for Research in Education, 165, 216, 225–7, 238, 248, 314
Australian Broadcasting Control Board, 266
Australian College of Education, 165, 219, 227, 266
Australian Council for Educational Research,
  administration, 6–10, 44–8, 61, 133, 139, 167–8, 194–8, 204, 255–7, 308, 314–19, 331–2
  advisory services, 231, 237–8, 246, 249, 250
  constitution, 13, 16–18, 129, 130, 163, 165, 309, 312, 315–16, 321, 322
  council meetings, 16–23, 48, 145, 170, 196, 202, 224, 225, 233, 234–5, 292, 312–13, 322, 323, 328
  establishment, 1–23
  finances, 13–16, 43–4, 83, 101, 105, 119–20, 122, 124, 128, 134–5, 140, 148–61, 207, 217, 218, 220–2, 224, 244, 246, 260, 285, 290, 305, 306, 309–11, 318, 324, 326
  image, 48–52, 123–4, 136, 237, 300–1, 314, 325–6, 327–9, 332
  independence, *see* education departments, relations with the ACER
  library and information services, 55–6, 60–1, 80, 168–9, 202, 204, 231, 232–3
  publications, 65, 84–9, 100, 113, 117, 123, 124, 139, 143–8, 165–6, 180, 184–5, 194, 208, 232–9, 246–50

Australian Council for Educational Research, *continued*
  research program, 21–3, 44, 49–51, 54–60, 139–41, 163–4, 166, 182, 193–4, 197, 202–31, 246–7, 250, 271–304, 307, 308, 312, 313, 318, 323–4, 326–31
  sales, 146–7, 160–1, 170, 171, 172–3, 178, 181, 192, 224, 235, 237, 239, 241, 242–50, 253–4, 263, 271, 286, 305, 306, 325
  staff attitudes, 67, 99, 128, 144–6, 197, 206, 209–10, 213, 224–5, 244, 248, 250, 256–7, 278, 307, 308, 315–19, 328, 330–1
Australian Education Council, 149, 150, 154, 156, 157–8, 302, 309, 311
Australian Institute of Industrial Psychology, 55
Australian Institute of Librarians, 118, 119–20
Australian National Research Council, 141–2
Australian Psychological Society, 248, 289
Australian Research Grants Committee, 218
Australian Scholastic Aptitude Test, 255, 271, 274, 281–4, 286, 288
Australian Science Education Project, 247–8, 258–60, 263, 264, 290
Australian Science Teachers Association, 257
Australian Studies in School Performance, 291
Australian Unesco Education Committee, 261, 266
Australian Women's Army Service, 134

Bassett, G.W., 220n, 238, 251
Batten, M., 301*n*
Beard, C.A., 96
Bennett, D.M., 261–2, 318
Berry, R.J.A., 32
Biaggini, E.G., 88, 123
Binet, A., 24, 31
Binet tests, 31–4, 89
Binns, K., 104*n*
Blazely, L.D., 277, 318
Board, P., 75, 77
Bourke, S.F., 296–300
Bovet, P., 108, 110
Boyd, W., 109–11
Bradshaw, D.M., 167, 238
Bradshaw, G.D., 133, 137, 167, 183, 195, 225, 238, 314, 317–18
Braithwaite, J.McK., 78
Branson, C.W., 72, 125*n*
British Psychological Society, 133, 256
Brooks, F.H., 220*n*
Brooks, G.V., 118, 154
Brown, W., 73
Browne, G.S., 4*n*, 18–19, 21, 51, 75–6, 79, 84, 90*n*, 91–2, 95, 112, 200, 320
Brunner, E.De S., 108
Bullivant, B.M., 236
Burt, C., 20, 24, 74, 108
Butchers, A.G., 19
Butts, R.F., 189–93, 194, 239, 269

Cameron, R.G., 11, 16, 22, 24, 29–30, 31, 51, 75–6, 77, 112, 196
Campbell, M.A., 45–6, 67, 99
Campbell, W.J., 268
Cannon, J.G., 30, 35, 90*n*, 92, 93
Carnegie Corporation, 1–6, 13–16, 22, 80–3, 84, 97, 101, 104–5, 107, 116, 119, 120, 121, 122, 126–7, 128, 142–3, 148–9, 152, 154–5, 164
  travel grants, 10, 67, 91, 92–3, 94n, 96, 106, 127, 154,

Carnegie Corporation, *continued* 199–200, 201, 204, 239, 271
Catholic Education Office, 303–4
centralization in Australian education, 76, 80, 96, 102, 112, 188, 190, 240, 267
Chauncey, H., 174
Churchill Memorial Trust, 266
Civic Vocabulary Test, 173
Claparède, E., 95
Clark, D.L., 212*n*
Clark, J.F., 137
Clark, M.L., 224–5, 235, 242*n*, 273, 278, 287, 288, 331
Clarke, F., 123–4, 200
Coffman, L.D., 81–2, 126
Cohen, S.W., 173
Cole, J.A., 126
Cole, P.R., 7–8, 11*n*, 16, 24, 28–9, 48, 75–8, 80, 85, 91*n*, 168, 196
Coleman, J.S., 231*n*
Collis, K.F., 235
Collmann, R.D., 34*n*, 90*n*, 95*n*
Columbia University Teachers College, 40–2
Commonwealth Advisory Committee on Advanced Education, 266
Commonwealth Office of Education, 158, 162–4, 171, 204, 207, 210, 212, 216, 291, 312
Commonwealth Scientific and Industrial Research Organization, 15–16
  see also Council for Scientific and Industrial Research
Commonwealth Secondary Scholarship Examination, 223, 255, 264, 271, 275–81, 286, 288, 297, 305, 317, 318, 330
comparative education, 90–116, 291–6
Connell, W.F., 210, 225–6, 234–5, 236–7, 239
Cook, P.H., 137
Co-operative Scholarship Testing Program, 264, 275
Copland, D.B., 114, 247
core curriculum, 276
correspondence education, 52–3, 58–9, 63–5, 185
Couchman, A.E., 61–2
Council for Scientific and Industrial Research, 4, 8–9, 12, 22, 70, 125*n*
  see also Commonwealth Scientific and Industrial Research Organization
Counts, G.S., 94
Cowan, R.W.T., 209
Cramer, J.F., 91*n*, 93, 96–7, 98, 99, 100–1, 102, 103, 149, 194
criterion-referenced tests, 297
criticisms of Australian education, 96–103, 109, 112–13, 143–6, 188–93, 239–40
Cronbach, L.J., 223
Cunningham, K.S., 3, 10, 11, 19, 21, 24, 25, 32–3, 35, 36–44, 45, 48, 49–51, 53–4, 56–7, 58, 59, 60–2, 63–8, 72, 75–6, 77, 79–80, 81–2, 84, 85–6, 87, 90, 91*n*, 92, 93–6, 97–9, 100–1, 103–4, 105, 106, 107–8, 109, 110–11, 113, 115–16, 117, 118, 119, 120, 121, 122, 123, 125–7, 128–9, 130–1, 132–4, 135, 136, 138, 139–40, 141–3, 145–6, 148–56, 159, 163, 164, 166–7, 168, 169–70, 171, 174, 181–2, 184–5, 188, 189, 192, 193–8, 199, 200–1, 202, 236–7, 248, 267, 274, 291, 314, 316, 320, 326, 332
Cunningham, L., 198*n*
Curriculum Development Centre, 229, 255, 260, 262, 300, 310
curriculum materials, 212–13, 219,

curriculum materials, *continued* 230, 240–5, 246, 250–5, 257–64, 300
  see also reading aids
Curtin, J.J., 133–4, 155

Dale, L.G., 257, 259
Dalton Plan, 85
Darling, J.R., 77
Davies, E.S., 109, 118
Debenham, F., 109
Debus, R.L., 235
De Lemos, M., 303
Dengler, P., 110
Dent, H.C., 188–9, 200
Dershimer, R.A., 226*n*
Dewey, J., 108
Directors of Education Conference, 3, 98, 100, 149, 151, 152, 158, 175–6, 302–3, 309, 312
dissemination of research, 206, 212, 217, 221, 233–4, 247–50, 320, 322
Dollard, C., 198
Dreyer, R. de V., 19–20
Duff, T.S., 214
Duhig, J., Archbiship of Brisbane, 114
Dunkin, M.J., 226*n*
Dunn, S.S., 135, 137, 167, 171, 174, 195, 223–5, 229, 236–7, 239, 141, 242–3, 244, 248, 253, 255–7, 271, 272, 276, 287, 289, 314, 324, 328
Dwyer, C.F., 168
  see also Gigante, C.F.

education departments
  relations with the ACER, 3–5, 68, 75, 93, 97–8, 100–1, 130, 140, 148–59, 175, 181, 196–7, 224, 240, 248, 266, 288, 293, 305, 309, 312, 313–14, 325–6, 327, 331
Education Research and Development Committee, 229, 255, 296, 299, 311, 324
  see also Australian Advisory Committee on Research and Development in Education
educational inequality, 74, 92, 102, 135, 146, 180, 181, 190, 222–3, 265–6, 267, 280–1, 292, 296, 299, 300, 301–2, 303
educational innovation, 51, 76, 90, 92, 94, 108, 111, 147–8, 205–6, 212–13, 214–15, 237, 248–9, 260, 263–5, 284, 314–15
educational research, 8*n*, 14, 24–36, 83, 84–9, 90, 94, 95, 102, 109, 110, 121, 124, 125, 126, 139–41, 167, 199–231, 240, 314, 327
  see also comparative education; evaluation studies; school achievement, research studies
educational standards, 299
educational statistics, 59, 163, 287
educational testing, 69–71, 141, 173, 193, 256–7, 271–89, 290, 291, 300
  see also arithmetic tests
Educational Testing Service, 174
Edwards, L.D., 106, 153
employment of youth, *see* youth employment
Ennor, H., 216, 217, 278, 281–2, 309
Ensor, B., 108, 109, 110, 111
evaluation studies, 290–302, 324, 329–30

factor analysis, 73
Fattu, N.A., 227
federal government departments, 130, 134–9, 217, 220, 228, 301, 307, 310, 316, 317
Fenner, C., 85, 86, 247
financial support from governments, 105, 122, 124, 134–5, 140, 148–61, 217, 218, 220–2,

246, 260, 285, 305, 309–11, 318, 324
Findlay, M.A., 169
Firth, L., 62
Fitzgerald, R.T., 215, 233, 236, 262, 264–6, 287, 318
Fletcher, C.E., 77
Flexner, S., 223
Fordham, A., 302*n*
Fowler, H.L., 20, 86, 88, 104*n*, 132, 133, 166
Fraser, J.M., 311
Fryer, G.T., 12
Fyfield, J., 301

Gagné, R.M., 261
Gates, A.I., 41
Gibb, C.A., 73, 137, 234, 281
Gigante, C.F., 169
Goddard, H.H., 31, 33
Gollan, K., 28
Gough, A.V., 312–13
grading in schools, 33–4, 37, 85–7, 251
Grant, A., 278*n*
Guilford, J.P., 74*n*

Hall, S.G., 24, 27
Hamley, H.R., 21*n*, 24, 109, 200, 201
Hammond, S.B., 137
Hankin, G.H., 109
Hansen, M.P., 4*n*, 19
Happold, F.C., 109, 111
Harkness, B.C., 103
Harris, H.L., 77
Harris, J., 152
Hart, E.K., 239
Hart, F.W., 108, 112
Hart, J.A., 239
Headlam, F., 303
Hieronymus, A.N., 271
Hohne, H., 183, 184, 210
honorary degrees, 110*n*
Hotelling, H., 74
Howard, H.O., 259
Hughes, P.W., 270*n*
Hunt, H.A.K., 20, 237
Hunter, T.A., 82*n*
Husén, T., 292
Hu Shih, 108
Hyams, B.K., 236

Individual Mathematics Programme, 247, 252–4, 256, 258, 268, 290
individualized learning, 64, 85, 86, 241, 244–5, 246, 247, 250–4, 258, 260–1, 267–8, 317
Ingvarson, L., 301
Inkeles, A., 295
intelligence testing, 31–7, 41–2, 71–5, 87, 89, 140, 170, 173, 288, 290
International Association for the Evaluation of Educational Achievement, 291-6, 323, 324, 329
interstate jealousies, 14, 23, 47, 51–4, 97–8, 105–6, 326
Iowa Tests of Basic Skills, 271
Isaacs, S., 109, 110
item banks, 268, 284–6, 328
Izard, J.F., 252–3

Jackson, R.W.B., 239–40
Jean Jacques Rousseau Institute, Geneva, 95, 108
Jeffery, P., 250, 255
Johnston, J.A., 11, 16
Jones, E.M., 240
Junior Secondary Science Project, 247–8, 257–9, 264

Kandel, I.L., 40, 91*n*, 93, 102–3, 105, 108, 109, 110, 191, 194
Karmel, P.H., 238, 307, 308, 319
Keats, D.M., 167
see also Waddington, D.M.
Keats, J.A., 163, 167, 174–5, 195, 225–6, 232, 289
Keeves, J.P., 215–16, 226*n*, 229–31, 235, 237, 242*n*,

Keeves, J.P., *continued* 252, 256, 257, 280*n*, 287, 291, 292–3, 296–300, 303*n*, 319, 323–5, 331, 332
Kelly, T.L., 21*n*
Kenna, J.C., 137, 138
Keppel, F.P., 2, 3*n*, 13, 21*n*, 80–1, 82–3, 84, 92, 96, 98–9, 104, 117, 119, 126, 127–8, 131
Kilpatrick, W.H., 21*n*, 41
Kirby, F.G., 120
Klein, J.A., 70
Knee, W.J., 45–6, 99
Kough, J., 241, 243

La Nauze, J.A., 146
Leavis, F.R., 88
Lees, L., 284
Legacy, 266
Lewis, R., 295*n*, 296*n*, 303*n*
Library Association of Australia, 120, 121
Library Association of Victoria, 116
library services, 111–12, 115–22
  see also Australian Council for Educational Research, library and information services
Lindquist, E.F., 271–2
Lindsay, A.D., 108
Lismer, A., 105, 108–9, 110, 111
literacy and numeracy, 176, 291, 298–300
Little, M.G., 153, 158
Long, C.R., 28–9
Lord, F.M., 174, 175, 289
Lovell, H.T., 2, 3, 5, 6, 7, 11, 15, 16, 17, 22, 24, 48, 55, 57, 75–6, 77, 82, 85–6, 112, 122*n*, 133, 151–2, 156, 168, 196
Lushey, H.M., 104*n*
Lynravn, N., 119
Lyons, J.A., 105, 128, 154–5

Mackie, A., 2, 4*n*, 5, 6–7, 8, 11–12, 13, 15, 16–17, 20, 22, 25, 51, 55, 60*n*, 75–6, 77, 86, 112, 122*n*, 168
Mackie Medal, 314
Malherbe, E.G., 103, 110
Maling Keepes, J., 235–6, 279
Malvern Project, 304
Mao Tsetung, 279
Marshall, A.J., 34*n*, 90*n*
Martin, A.H., 55
mastery learning, 178, 180, 181, 230, 253, 258, 261, 273, 297–9, 328
Matthews, J.K., 250*n*, 297*n*, 299*n*, 303*n*
McColvin, L.R., 120–1
McCulloch, R.W., 137, 217
McDonnell, R.M., 232
McDonell, W., 283–4
McDowell, R., 227
McIlroy, E., 246
McIntyre, G.A., 35*n*, 70–4, 79, 85, 123, 125*n*, 130, 138, 194, 195
McKay, P., 35*n*
McKenna, B.J., 97–8, 100–1, 104, 105–6, 113
McLean, D.J., 181*n*
McPherson, F.M., 169
McQueen, E.N., 20
McRae, C.R., 210, 21, 24, 25, 30, 35, 40, 75–6, 78, 90*n*, 92, 93, 96, 146, 168, 204
McRae, J., 25, 39, 101, 104
McShane, C.C., 118, 125*n*, 126
Meadon, P., 109
Medley, J.D.G., 143–4, 146, 147, 163, 196, 204
Melbourne Kindergarten Teachers College, 266
Melbourne Teachers College, 25, 39
Melbourne University Press, 170
Meldrum, H.J., 29–30
Menzies, R.G., 155, 275
Metcalfe, J.W., 119
Mills, R.C., 38, 163, 164
Milner, F., 82*n*
Minnesota Paper Form Board Test, 132

Montessori, M., 26
Montessori teaching, 31
Montgomery, C.S., 61
Morey, E.A., 137–8, 143n
Morris, J., 16
Mulford, W.R., 270n
Munn, R., 93, 116–17
Musgrave, P.W., 236

National Committee for Social Science Teaching, 262, 263
National Foundation for Educational Research, 289
National Information Centre for Social Science Education, 262
National Library of Australia, 117
Neal, W.D., 269
New Education Fellowship, 94, 103, 105, 106, 115, 188, 267
New Education Fellowship Conference 1937, 53, 79, 83, 103–16, 121, 123, 142, 145, 194, 203, 238, 325–6, 330
new maths, 182
New South Wales Basic Skills Testing Program, 174, 271, 273, 286, 287, 288
New South Wales Primary Evaluation Program, 273
New Zealand Council for Educational Research, 74, 80–4, 103–4, 115, 126, 128, 238, 277, 292
Nixon, M., 215
Noble, T.E., 280
Norwood, C., 109–10
Nunn, P., 20, 107

Oddie, N.M., 302
O'Donnell, M.E.E.C., 244
Oeser, O.A., 142, 208
O'Neil, W.M., 86, 137, 200
oracy, 300
Osborne, G.A., 78
Otis intelligence tests, 71, 134, 170
Owen, J.M., 260, 263, 296n
Ozolins, U., 295n

Palmer, M., 317
Parker, H.T., 16, 22, 24, 33, 35n, 75–6, 78–9, 85, 89, 91n, 95n, 97, 104n, 118, 126, 166, 180, 181n, 196
Parkyn, G.W., 292
Partridge, P.H., 225, 307–8, 309, 311, 319
Paull, A.G., 85, 86, 247
Payne, E.A., 104n
Peabody Language Development Kit, 245
Penny, H.H., 181n
Percy, Lord Eustace, 107
Petersen, J.B., 311
Pettit, D.W., 236n
Phillips, G.E., 10, 11, 12, 20–1, 24, 25, 28, 29–31, 33–35, 40, 89, 90, 123
Phillips, L.W., 143
Philp, H.W.S., 226n
Piaget, J., 95
Piper, K.J., 181, 250n, 161–2, 263–4, 279
Pitt, E.R., 93n, 117
Place, W.T., 16
Porteus, S.D., 24, 25, 31–3, 37–9
post-war reconstruction, 115, 131, 138, 143–4
Pratt, J.J., 79, 125n, 163, 204, 220n
Price, W.T., 65, 67, 69, 124, 125n
Priestley, R.E., 104
Priestley, R.R., 135, 137, 138
private schooling, 112, 145, 190, 192, 202
programmed learning, 304, 329
progressive education, *see* educational innovation
Pryor, L.J., 181n
Psychological Corporation, 289
psychological testing, 131–7, 173, 183, 193, 256–7, 272, 274, 287, 289–90
  see also intelligence testing

Radford, W.C., 79, 87, 115, 125n, 140n, 163, 167, 176, 180,

Radford, W.C., *continued* 181*n*, 195, 199–215, 216, 217, 218–20, 221, 222, 223–4, 225, 226, 227–9, 232, 235, 238–9, 240, 242, 247, 248–9, 251–2, 256–7, 258, 259–60, 261, 262, 265–9, 276–7, 279, 280–1, 287, 291, 292–3, 294, 299, 302–3, 305, 308, 309, 311, 313–15, 316, 319, 323, 326, 327, 328–9, 332
Rae, D.M., 81–2
Ramsay, A.H., 199, 204
Ramsey, G.A., 259
Rankin, D.H., 28–9
Raven's Standard Progressive Matrices, 290
Rawlinson, R.W., 252
Rayner, S.A., 65, 167, 173, 185–7, 288, 307, 308, 311, 319, 322
reading aids, 241–5, 272–3, 287, 288
Rechter, B., 277–8, 279, 282*n*
Rees, D.M., *see* Bradshaw, D.M.
Rein, W., 7
Renehan, W.T., 280
Richardson, J.A., 239
Rivett, A.C.D., 4*n*
Roberts, T.T., 11, 24, 27, 29–30
Robertson, T.L., 189, 204, 217–18, 220*n*
Robson, L.C., 113–14
Rosier, M.J., 291, 293*n*, 294–6, 303*n*
Ross, B.W., 125*n*
Ross, D.J., 236–7
Rousseau, J.J., 114
Rugg, H., 41, 108, 110, 111
rural education, 78–9, 96, 108, 111, 138, 201
Russell, J.E., 1, 2, 3*n*, 4–5, 6, 7, 8, 13, 14, 15, 22, 45, 47–8, 80–1, 127, 205
Russell, J.M., 53–4, 82, 127, 200
Russell, W.F., 40
Sanders, C., 183*n*, 210
Sandiford, P., 84
Schonell, F.J., 181*n*, 198, 234
school achievement
    interstate differences, 68, 71, 74, 78, 178, 179, 293, 294
    research studies, 29–31, 176–80, 210–11, 215–16, 235, 291–300, 303, 323
    sex differences, 67, 71, 74, 294
    socio-economic influences, *see* educational inequality
    see also literacy and numeracy
school curriculum, 22, 75–7, 91–2, 175–82, 249, 252, 268
    see also core curriculum
school leavers, 184–5, 294–5, 302–3
school libraries, 97, 120, 126
Schools Commission, 229, 285, 300, 301, 310
Schulz, A.J., 11, 16, 55
Science Research Associates, 240–5, 251, 256, 268, 271, 305, 329
Scottish Council for Research in Education, 60, 315
secondary education, 76–8, 98, 144, 192, 208, 215, 264
secondment of teachers, 4, 42, 65, 67, 70, 72, 79, 124–5, 128, 133, 135, 152–3, 167, 171, 185, 194–5, 199, 257, 259, 261, 285, 287, 288, 317, 326, 328
Seitz, J.A., 77–8
selection for tertiary education, 183–4, 281–4
Shears, L.W., 234
Shepardson, W.H., 164
Skillen, E., 31
Skurnik, L.S., 284
Slee, C.W., 280*n*
Smeaton, T.H., 28–9
Smith, S.H., 28–9
Smuts, J.C., 107
Smyth, J., 24, 25, 29, 32, 36n, 320
Social Education Materials Project,

259, 262, 263–4, 290
Social Science Research Council of Australia, 141–3, 214*n*
South African Council for Educational and Social Research, 82n, 103
Spaull, G.T., 28–9
Spearman, C.E., 20, 21, 24, 28, 40, 95
Spearritt, D., 167, 195, 210, 214, 235, 302, 318, 331
Spencer, F.H., 93
Stackpole, S.H., 16*n*
standardization of tests, *see* test development
Stanhope, R.W., 71
state governments, *see* education departments; interstate jealousies
State Institutes of Educational Research, 8–12, 17, 22–3, 46–7, 56, 66, 104, 130, 145, 164–7, 177, 217, 226, 234, 235, 248, 319–23
statistical analysis, 10, 14, 28, 70, 72, 78, 85, 174–5, 280, 289
  see also factor analysis
Staurenghi, P., 232
Steinle, J., 295*n*
student assessment, 256, 268, 273–84
Sutherland, J.E.N., 282–3*n*, 284*n*
Sweete, H., 251
Sweetman, E., 28–9
Sydney Teachers College, 6–7, 25, 125–6
Sydney Technical College, 137
Systematic Training for Effective Parenting (STEP), 245

Tate, F., 2, 3–5, 6, 7, 10, 11–12, 13–14, 15, 16, 17, 19, 21*n*, 22, 43–5, 48, 49, 51, 53, 54, 56–7, 70, 75–6, 77, 81–2, 91*n*, 92, 98–9, 103, 105, 106, 109, 110–11, 116, 117–18, 119, 121, 126–7, 128–9, 130, 148, 149–51, 154–5, 168, 195, 196, 320, 321
Tawney, R.H., 107–8
tea break, 67, 317
teacher training, 39, 40, 99, 112, 138, 144, 191–2, 213, 255, 269, 301
teachers, 92, 94, 100, 113, 188, 191, 246, 248–50, 252, 254, 266, 267, 268–9, 277–8, 283, 285, 286, 302, 327
  secondment, *see* secondment of teachers
teachers unions, 101, 228
technical and further education, 188, 301, 302
  see also adult education
tertiary education selection, *see* selection for tertiary education
Tertiary Education Entrance Project, 255, 264, 271, 281–3, 286, 288
test development, 22, 53, 58–9, 60–1, 65–75, 76, 83, 90, 126, 131–2, 133, 140, 169–74, 215, 219, 222–4, 248, 271–90, 317, 323
Thomas, R., 34n, 69, 90n
Thomson, G.H., 73–4, 95, 108
Thomson, J.D., 280*n*
Thorndike, E.L., 24, 28, 40, 41, 50
Thurstone Centre of Gravity Method, 73
Thurstone, L.L., 74
Tonkin, H.L., 21
training of research workers, 57, 90, 124–5, 185–7, 204, 208, 216, 217, 221, 227, 228–9, 287–8
Trevor, R., 244
Tsurumi, Y., 110
Turner, M.L., 257, 287

Unesco, 142, 163, 266, 291
Union Trustee Company, 46

412

United States
  education, 90–3
University of Melbourne, 39, 125
University of Sydney, 137

Vedel, A. 108
Verco, D.J.A., 71–2, 125*n*, 181*n*, 317–18
Victorian Institute of Librarians, 120
Victorian Primary Schools Testing Program, 273
Victorian Teachers Union, 123, 280
Victorian Universities and Schools Examinations Board, 257, 278
vocational guidance, 39, 55, 61, 134, 135, 136–7, 141, 300

Waddington, D.M., 232
  see also Keats, D.M.
Walker, A.P., 181
Walker, E.R., 157
Warry, R, 287–8
Webster, A.W., 196, 288, 299, 331
Weeden, W.J., 137, 164*n*, 281
Western Australian Reading Development Scheme, 242, 244–5
Wheeler, D.K., 210
Whiteoak, L.J., 24, 35, 42, 104*n*
Whitford, T.L., 277
Wilkes, R.E., 280, 303*n*
Willcock, H.P., 29–30
Williams, T.H., 231*n*
Wilson, A.F., 296*n*
Wilson, N.L., 282*n*
Withers, G.P., 278
women
  representation on Council, 167
Wood, R., 284
Wood, W., 65, 67, 69–70, 99*n*, 125*n*, 168, 196, 288, 331
World War I, 38
World War II, 114–15, 130–41
  see also post-war reconstruction
Wright, A.F., 303*n*
Wrigley, L.J., 11, 16, 60*n*
Wundt, M., 24
Wyeth, E.R., 196
Wyndham, H.S., 78, 84, 85–6, 87–8, 104*n*, 123, 126, 170*n*, 234

Yackel, J.P., 245
youth employment, 130–1, 184–5, 300–1, 302–3

Zilliacus, L., 108, 110, 111

Emeritus Professor William F. Connell was Professor of Education at the University of Sydney from 1955 to 1976 and was the foundation editor of the *Australian Journal of Education* from 1957 to 1972. His publications include *The Educational Thought and Influence of Matthew Arnold*, *The Foundations of Secondary Education*, and *A History of Education in the Twentieth Century World*. He was awarded the Mackie Medal in 1977 for services to education in Australia, and made an honorary member of the Australian Association for Research in Education in 1979. He is now a Fellow of the Faculty of Education at Monash University.

414

ISBN 0 85563 209 7